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THE BRITISH PTERIDOLOGICAL SOCIETY

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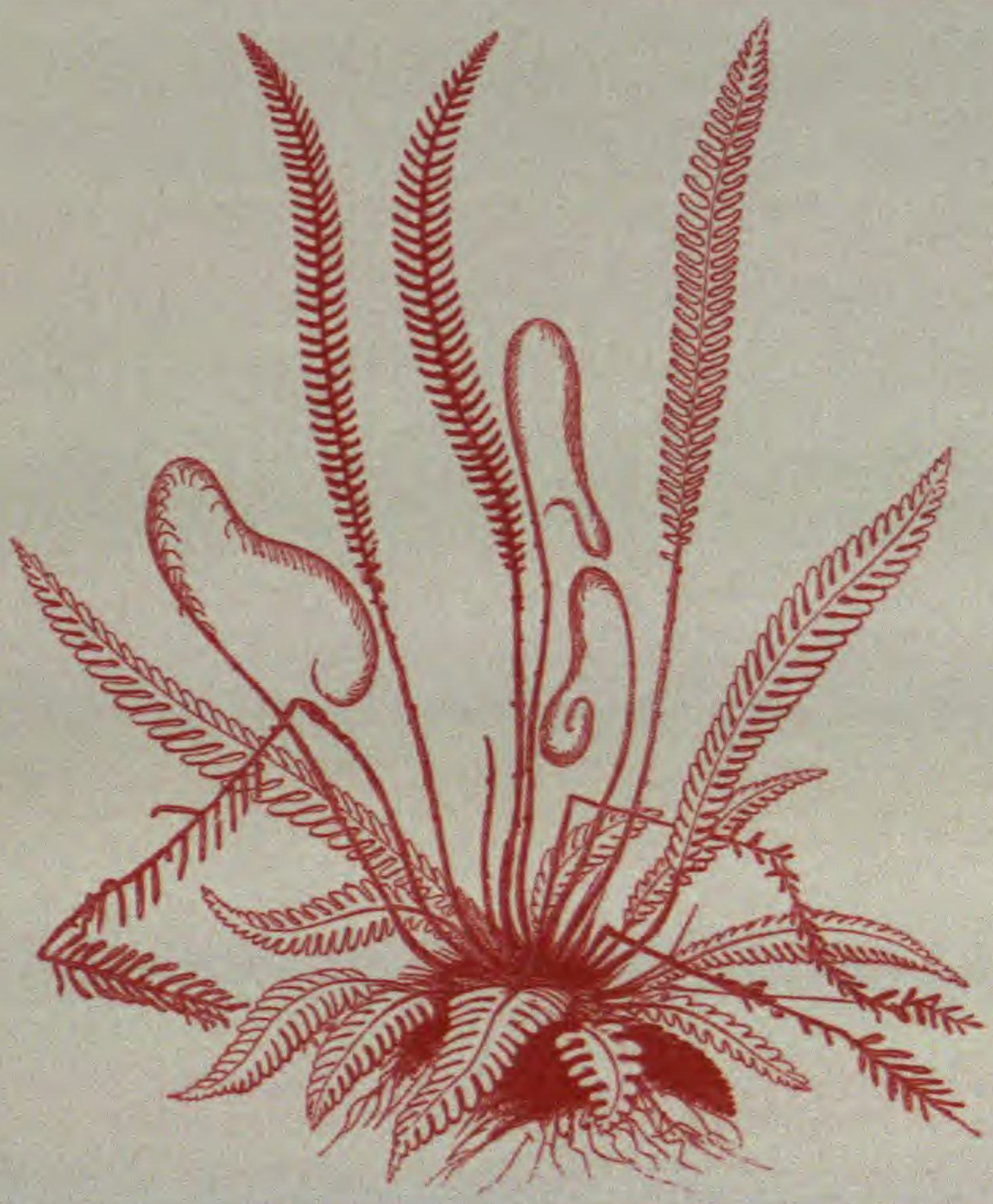

Edited by A.M. Paul

THE BRITISH PTERIDOLOGICAL SOCIETY

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The BRITISH PTERIDOLOGICAL SOCIETY was founded in 1891 and is still a focus for fern enthusiasts, its wide membership including gardeners, nurserymen and botanists, both amateur and professional. It provides a wide range of information about ferns through its publications and website, and also organises indoor and field meetings, garden visits, a plant exchange, a spore exchange and fern book sales. The Society's journals, *The Fern Gazette*, *Pteridologist* and *Bulletin*, are published annually. *The Fern Gazette* publishes matter chiefly of specialist interest on international pteridology, the *Pteridologist*, topics of more general appeal, and the *Bulletin*, Society business and meetings reports. **Website: www.eBPS.org.uk**

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(**Front cover**: *Blechnum spicant*. Illustration from: E. Newman (1844) *A history of British ferns and allied plants*.)

Back numbers of *The Fern Gazette*, *Pteridologist* and *Bulletin* are available for purchase from P.J. Acock, 13 Star Lane, St Mary Cray, Kent BR5 3LJ; E-mail: BackNumbers@eBPS.org.uk

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THE
BULLETIN
OF THE
BRITISH PTERIDOLOGICAL SOCIETY

Vol. 8 2015 No. 2

NATIONAL FIELD MEETINGS

GUERNSEY, CHANNEL ISLANDS – 27-30 March
(Leaders: Andrew Leonard & Tim Pyner)

Friday 27th – Petit Bôt, St Peter Port & Fort Hommet **Anne Haden**

Flights from Manchester, Gatwick, Southampton and Jersey arrived in Guernsey on the Friday without a hitch and by 11 a.m. our minibus was on its way to Petit Bôt (Bôt to rhyme with low) on Guernsey's south coast. A granite wall with many *Asplenium marinum* (sea spleenwort) plants growing on it was right next to the spot where the minibus parked. Nearby, a *Polypodium* was the subject of much discussion, but it was decided that it was *P. interjectum* (intermediate polypody), as are most of the Channel Island polypodies.

A short walk up the nearby road yielded many ferns, including a special discovery by Andrew of a single plant of *Asplenium* × *microdon* (Guernsey fern) growing at the side of the road. An exciting find so early on in the trip. Also along the roadside were *Pteridium aquilinum* (bracken), *Asplenium obovatum* subsp. *billotii* (lanceolate spleenwort), *A. adiantum-nigrum* (black spleenwort) and *Dryopteris affinis* subsp. *affinis* (golden-scaled male fern). Alison saw the bright green fronds of a newly emerging *Athyrium filix-femina* (lady fern), just visible among the grass. The rain that had been threatening to fall all morning then poured down and the group sought refuge in the Martello Tower next to the beach to eat lunch. We were joined by George Garnett who lives on Guernsey and, despite being only sixteen and currently doing his GCSEs, is a knowledgeable botanist and has a keen interest in ferns.

A short trip then took us into the narrow streets of St Peter Port where we found *Asplenium trichomanes* subsp. *quadrivalens* (maidenhair spleenwort) and *A. ceterach* (rustyback) growing on the walls. *Adiantum capillus-veneris* (maidenhair fern) does not grow in the wild in Guernsey, however, it has naturalised, probably from spores from cultivated plants, on walls near Candie Gardens where the group found many small plants. Another *Asplenium* growing on the walls was *A. ruta-muraria* (wall rue).

Our final location for the day was Fort Hommet where we were able to find two of Guernsey's rarest plants. Near a rocky outcrop we found many leaves of the tiny fern *Ophioglossum lusitanicum* (least adder's tongue) and, after much searching, a few spikes still remaining from their winter fruiting. After a short walk towards a heath area we easily found *Isoetes histrix* (land quillwort), confirmed by the presence of two marking pins left by Fred Rumsey who had visited the site earlier. It was necessary to get down on hands and knees to distinguish the quillwort from the newly emerging leaves of buck's horn plantain (*Plantago coronopus*).

Saturday 28th – St Saviour, Portelet & Torteval areas **Bruce Brown**

It was rather misty and still coolish as we headed in the minibus north-west towards St Saviour, with a couple of short stops on the way. Our first port of call near Les Provosts

Road was a quiet narrow lane with typical Guernsey tall, but well managed, hedgebanks topped with gorse and well clothed with a mass of herbaceous vegetation such as navelwort, campion, fumitory and scurvy grass, to name but a few. *Polypodium interjectum*, *Asplenium obovatum* subsp. *billotii* and *A. adiantum-nigrum* were common, but looking closer towards road level underneath the main overhang of vegetation we were delighted to find a few clumps of the delicate annual *Anogramma leptophylla*. We gathered that it is restricted solely to this area of Guernsey, although slightly more common on Jersey, but is at its northernmost range in the Channel Islands and absent from the rest of Britain.

At our next stop at the Grantez Mill viewpoint looking out to Vazon Bay we were introduced to another Guernsey speciality, *Asplenium* × *microdon*, the rather unusual looking but attractive hybrid between *A. scolopendrium* and *A. obovatum* subsp. *billotii*, and known as the Guernsey fern. It is rather robust in form, well lobed and probably most similar in appearance to *A. marinum*. We stopped again by Les Clos au Compte to see another one by the roadside, growing with its parent species, and the house owner came out, showing interest in this rare fern growing on his 'doorstep'. We in turn admired his magnificent *Washingtonia* palms, grown from seed and now ten years old.

photo: R. Golding

Asplenium* × *microdon

We parked by St Saviour church for a longer walk, meeting up with Fred and Sue Rumsey who coincidentally were on holiday in Guernsey. Thus armed with prior knowledge from Andrew's and Fred's previous visits and our local member George, we were able to find quite a few more 'microdons' as we meandered along paths and lanes around the church and towards the reservoir. It was not long before we encountered another fern rarity, *Asplenium* × *sarniense*, the Guernsey spleenwort (the hybrid of *A. obovatum* subsp. *billotii* and *A. adiantum-nigrum*), which is not that uncommon in south-west Guernsey but very rare elsewhere in Britain. There was a confirmed plant close to the church and its characters were explained to us by Fred, mainly that its triangular-shaped frond is similar to 'ad-nig', but with mucro-tipped pinnules like 'obovatum'. In practice it is closer in appearance to 'ad-nig', which itself is quite variable on Guernsey, so not that easy to pick out without confirmation by spore infertility.

We totted-up at least four 'microdons' and several 'sarnienses' as we explored the attractive countryside near St Saviour Reservoir. Ruette Tranquille is the name given to the narrow quiet lanes, with pedestrian priority over cars, much appreciated due to their narrowness and steep-sided banks. Other ferns noted along the way included *Athyrium filix-femina*, *Dryopteris filix-mas*, *D. dilatata* and dead fronds of *Pteridium aquilinum*. It came on to rain so we headed back to the minibus for lunch.

It was brighter again in the afternoon as we moved to the coast at Portelet Bay. A narrow winding path climbing up from the coastal road proved to be an absolute ferny paradise, with many young plants of the parent aspleniums and some more of their two hybrids. With the bank-cutting regime keeping the vegetation low, it seems likely that hybrids can reform regularly and we saw quite young specimens of 'microdons' and 'sarnienses'. Here Fred had recorded the extremely rare *A.* × *jacksonii* (*A. adiantum-nigrum* × *A. scolopendrium*) in the past, but unfortunately none were still present nor were new ones found on our current visit. There was time for a final hour in the lanes around Torteval church to find a few more plants, the highlight being a 'microdon' with the biggest fronds seen so far, nearly a foot long.

After a brief stop at the hotel on the way back, we carried on into St Peter Port for a guided tour of the Herbarium kept by La Société Guernesiaise. George showed us some of the collections, including the isotype specimen of *Asplenium* × *sarniense* from Guernsey, described by Dr Anne Sleep in 1972, and from much longer ago, *A. adiantum-nigrum* and some other ferns from Joshua Gosselin's Guernsey collection of 1799.

photo: R. Golding

Asplenium **hunting in a Guernsey lane**
Tim Pyner, Fred Rumsey, George Garnett, Ashley Basil

Sunday 29th – Fermain Valley, Rue de Piquarelle, Petit Bôt & St Pierre du Bois
Alison Evans

It was Sunday, and the clocks had gone forward so we were allowed an extra hour and set off at 10 a.m. to the Fermain Valley. We parked below the empty Chalet Hotel, and walked down through the garden, noting patches of naturalised *Selaginella kraussiana*. After examining a plant of *Dryopteris affinis* subsp. *affinis* in some detail, we walked on towards the sea, noting *Asplenium adiantum-nigrum*, *A. obovatum* subsp. *billotii* and *A. scolopendrium* as well as *Athyrium filix-femina*, *Dryopteris filix-mas*, *D. dilatata*, *Polypodium interjectum* and *Pteridium aquilinum*. We searched the rocks around the beach but did not find any sea spleenwort.

Walking back towards the hotel we admired the flowering bushes of *Brugmansia sanguinea* and a large stand of *Zantedeschia aethiopica*. We added *Polystichum setiferum* and *Dryopteris borreri* to our fern list, then around the side of the hotel we looked down onto the canopies of three large *Dicksonia antarctica*. Some people scrambled down the steep, muddy, brambly slope for a closer look – the more cautious amongst us found a stairway down, although there were still brambles to contend with. Underneath the tree ferns was a 'garden' *Polystichum*, probably *P. polyblepharum*, and lower down the hillside were some self-sown dicksonias. A large plant of *Dryopteris affinis* agg. by the side of the stream was thought to be a candidate for *D.* × *complexa*, so it would be interesting to see if it has good or abortive spores later in the year. There was a further stand of scaly male ferns on the far bank of the stream that after some deliberation we decided was *D. borreri*.

Our second site was in the north of the island, in the parish of St Sampsons. We parked on Rue Piquarelle and walked a little way to see a colony of *Microsorum pustulatum* (syn. *Phymatosorus diversifolius*) appearing through the gaps in a stone garden wall. We could see that there was an extensive colony in the garden, and we were welcomed by the owners who brought out a spade and asked us to take as much as we wanted. They also thoughtfully provided us with carrier bags!

We set off back to Petit Bôt on the south coast to meet Rachel Raby, a notable Guernsey botanist who is working on the Guernsey Herbarium with George. Our first target plant was *Polystichum* × *bicknellii*, which Rachel had previously found in the vicinity. We walked up towards the coast path on the west side of Petit Bôt bay, noting a large polypody that we thought might be *P.* × *mantoniae*, though Fred later said he thought this unlikely, and a large plant of *Dryopteris affinis* with crested pinnae. Ashley found a plant of *Polystichum*

setiferum. When we arrived at the site of the hybrid *Polystichum*, the tree that Rachel used as a landmark had fallen down the hillside. A search on either side of the tree proved fruitless, so George and Andrew managed to lift the tree high enough for us to look underneath, but there was no *Polystichum* to be found. Presumably the plant had been out-competed by the brambles and lush undergrowth.

photo: A.J. Evans

Petit Bôt, Guernsey

Bruce Brown, Tim Pyner and Andrew Leonard examine a crested *Dryopteris affinis*

Rachel then gave us a diagram of the paths ahead, marked with the locations of *Polypodium* × *shivasiae* and *P. cambricum*. After some debate about the correct path to take, we found a large colony of what looked like *P. interjectum* around the site where we thought the hybrid should be. Later examination of sample fronds showed good spores, so it was not the hybrid. We were more fortunate in finding a good colony of *P. cambricum* on the cliff-top path, with its broader fronds and serrate pinnae. We then said goodbye to Rachel, and on her recommendation went to the Deerhound pub for lunch.

Warmed and re-fuelled, we parked near the church of St Peter (St Pierre du Bois) and set out in search of more hybrids. We soon found a plant of *Asplenium* × *microdon*, and then two plants of *A.* × *sarniense*. Andrew took a group photo at a point in the lane where there is a bollard on either side of the road – markers for another plant of *A.* × *microdon*, which was looking rather tatty. On our way back to the van we spotted *Woodwardia radicans* in a garden.

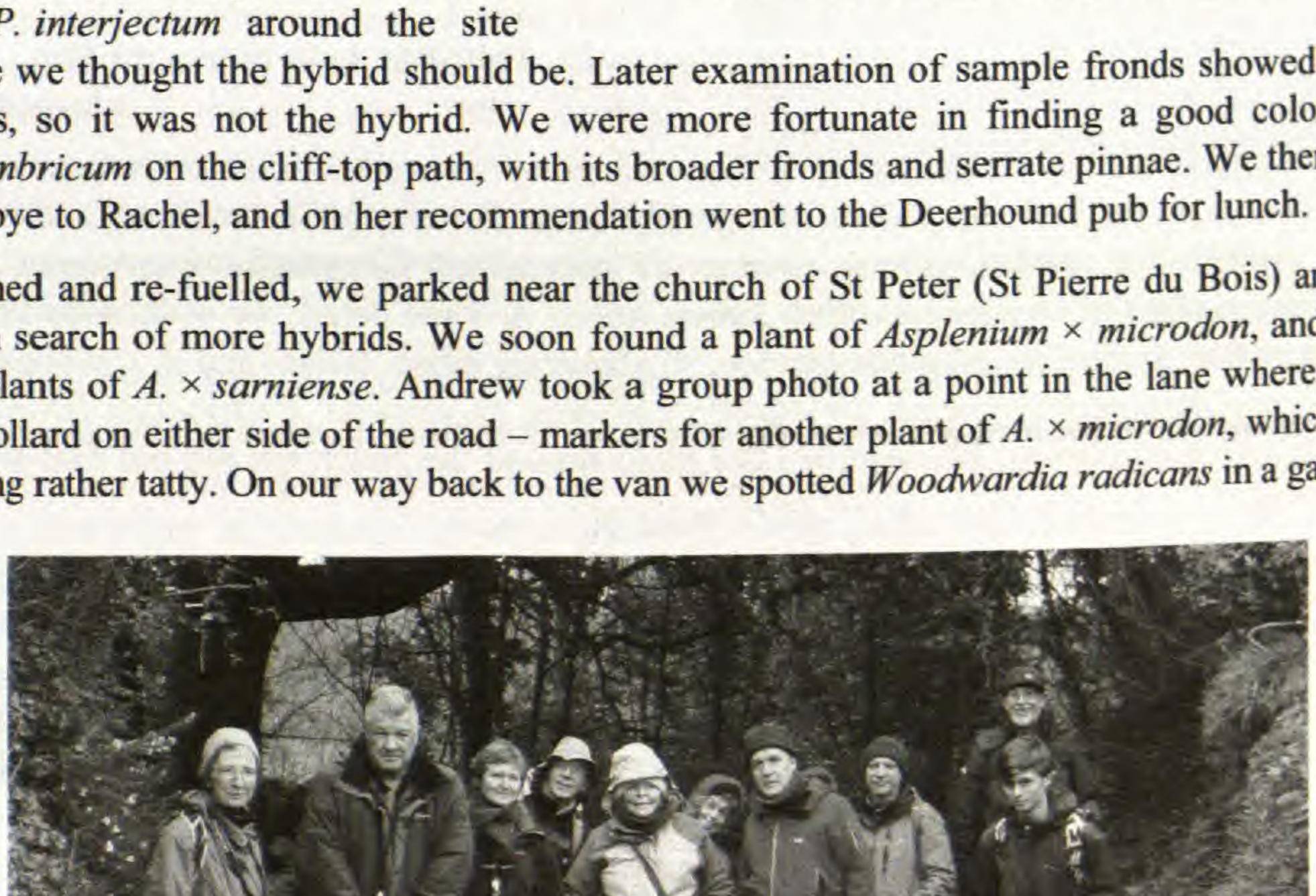


photo: A. Leonard

Near St Pierre du Bois, Guernsey

Alison Evans, Tim Pyner, Anne Haden, Ashley Basil, Gill Radley, Jo Basil, Michael Radley, Roger Golding, Bruce Brown, George Garnett

We returned to the hotel, where ferny activities continued after dinner. George brought in his USB microscope, and the hotel provided us with a room with screen and projector, so we were able to examine the specimens of polypodiums we had collected, and view them on the screen. All had good spores, so no hybrids, but we were able to confirm the specimen of *P. cambricum*. Tim then gave us a slide-show of Japanese ferns to round off another excellent day of 'ferning'.

Monday 30th – St Pierre du Bois, Portelet & Talbot Valley **Roger Golding**

This was the brightest day so far, with some actual sunshine in the morning. We returned to the area near St Peter's Church in search of another known *Asplenium* × *microdon* that we had somehow missed on the earlier visit. Fred gave us more precise directions, and this time we found it.

Next we drove west and parked on the sea front at Portelet Harbour overlooking Fort Grey. From here we walked along the coast, stopping to investigate rocky outcrops on the way. No new ferns here, but we did find some nice specimens of *Asplenium marinum*, as well as *A. obovatum* subsp. *billotii*, *A. adiantum-nigrum* and *Polypodium interjectum*. We also recorded *Athyrium filix-femina*, *Dryopteris dilatata* and *Pteridium aquilinum*. Heading inland over the top of the headland we passed a rather dramatic WWII German lookout post, looking a bit like a hybrid between a multi-storey car park and the Guggenheim Museum in New York, with spectacular views over the coastline. From here we followed a lane back in the direction of the harbour, finding on the way a particularly nice large candidate for *Asplenium* × *sarniense* as well as some very good-looking and photogenic clumps of *A. obovatum*, and also *A. trichomanes*. Halfway down, we passed a garden pond part-covered with *Azolla filiculoides*. During lunch at the café overlooking the harbour, Ashley pointed out a colony of *Asplenium ruta-muraria* on the wall of the public convenience, by far the largest colony seen on the trip.

photo: R. Golding

***Asplenium* × *sarniense* near Portelet Harbour**

After lunch we drove north to the Talbot Valley, the largest valley in Guernsey, and spent a pleasant couple of hours walking the lanes and footpaths. Although most of the ferns were species we had already seen, highlights included at least one probable *A.* × *sarniense*, and *Polystichum setiferum*, otherwise rarely encountered. The one new find was a crop of early shoots of *Equisetum* × *litorale* poking through the grass at the entrance to a farmyard – too young for us to identify, but known to Fred from previous visits. Not far on from this Fred pointed out an unusual plant, probably native in the Channel Islands, *Ficaria verna* subsp. *ficariiformis* (formerly *Ranunculus ficaria* subsp. *ficariiformis*) – a large-flowered version of the familiar lesser celandine. Piling back into the minibus, we had a brief stop beside the road to view *Adiantum capillus-veneris* on a wall before some of the group had to be dropped off at the airport.

The remainder went on to visit the large Canary Island date palm (*Phoenix canariensis*) on a traffic island near the harbour at St Peter Port, which turned out to have three species of fern growing on the trunk: *Athyrium filix-femina*, *Asplenium adiantum-nigrum* and *A. scolopendrium*. This was followed by a brief visit to George's garden before heading back to the airport. Unfortunately, the weather had begun to deteriorate by this time and a thick low-lying cloud layer grounded most of the flights, which meant that many of us had an unexpected extra night on the island!

RUTLAND (& LEICESTERSHIRE) – 20-21 June (Leader: Rob Cooke)

Saturday 20th **Paul Ripley**

Fifteen members and guests met south-west of Oakham at Prior's Coppice, a Leicestershire and Rutland Wildlife Trust Reserve. We were joined by Andy Lear and Chris Hill of the LRWT.

photo: A.M. Paul

Prior's Coppice LRWT Reserve
Chris Hill, Pat Acock, Bryan Smith, Brian Dockerill, Paul Ripley

Prior's Coppice (we entered at 43/835050) is part of Leighfield Forest, itself part of a mediaeval hunting forest centred on Braunston-in-Rutland. It is ancient woodland, falling broadly into two halves. The eastern part comprises chalk/boulder clay, washed originally from the Yorkshire Wolds. This woodland was felled in the late nineteenth century but has been allowed to regenerate naturally. The western part comprises Upper Liassic, which weathers to a more acid substrate. This area was felled in 1947, but apparently carries greater biodiversity. Certainly the shade is lighter; regeneration was in some areas dominated by dense ash seedling growth, but these had reached a 'stasis' without developing into large trees. Muntjac deer are present, and there are occasional incursions by the hunt but otherwise there is little disturbance.

In the eastern section, *Dryopteris filix-mas* and *D. dilatata* were common, *D. carthusiana* frequent and *D. borreri* occasional. We found no candidates for *D.* × *deweveri*, but two strong candidates for *D.* × *critica*, the hybrid between *D. filix-mas* and *D. borreri*. The immaturity of spores did not permit confirmation. *Athyrium filix-femina* was also common and *Equisetum telmateia* frequent in less shaded areas. The most surprising finds were *Asplenium scolopendrium* growing epiphytically on the bark of a fallen poplar (we later saw it in a similar situation on willow), and *Polystichum aculeatum* growing mainly on dried-up stream banks.

The change to the more acid western section was marked by a change from dominant dog's mercury (*Mercurialis perennis*) ground cover, to an acid ground flora exemplified by wood sorrel (*Oxalis*). In this area we additionally found a few plants of *Polystichum setiferum* (but not *P. aculeatum*) and a single *Dryopteris affinis* subsp. *affinis*. The borders of the rides were a delight, with abundant orchids, and we noted *Equisetum arvense*, and the fertile spikes of *E. fluviatile* growing in a wet area. A single plant of *Polypodium vulgare* was also seen, growing epiphytically on an ash. *Pteridium aquilinum* was not common, but was noted on drier fringes of the wood.

In the afternoon we visited Tilton Cutting, east of Tilton on the Hill (43/761055 – actually in Leicestershire), an SSSI where a former railway cut through Jurassic (Lias) Marlstone overlain by Whitby Mudstone. The Lias contains numerous embedded fossil molluscs. The terrain was not particularly fern-rich, but we found *Dryopteris filix-mas*, *D. dilatata*, *Athyrium filix-femina*, *Asplenium scolopendrium*, *Polystichum setiferum* and *Equisetum arvense*.

Our numbers swelled to 18, we assembled for a most convivial evening at the White Horse in Empingham.

Sunday 21st **Gill Smith**

The first site was Cribb's Meadow (43/899188), a National Nature Reserve east of Wymondham in Leicestershire, where we were joined by Mike Grant, a BPS member and also editor of the RHS publication *The Plantsman*.

This was a fantastic meadow full of wild flowers and the average height of the growth was about fifteen inches. In amongst the other plants, we found some large specimens of adder's tongue, *Ophioglossum vulgatum*. On closer inspection, one aberrant plant had five fertile spikes! There were many *Ophioglossum* plants throughout the meadow, which edged on to an old disused railway embankment, but on the bank only one other fern plant was found – a *Dryopteris filix-mas*. Another field on the other side of this embankment had a few more adder's tongues.

photo: B.D. Smith

Looking for *Ophioglossum* in Cribb's Meadow NNR

Gill Smith, Lindsey Holleworth, Paul Ripley, Alison Paul, Christine Mullins, Brian Dockerill, Pat Acock, Sue Dockerill

We moved on to a plant nursery in Thistleton. Although not a fern nursery, many members made purchases, as all the plants looked in superb condition and the Nursery was well kept. The owners invited us to see their private gardens, which were interesting.

photo: B.D. Smith

Multi-spiked *Ophioglossum vulgatum* in Cribb's Meadow NNR

From here we went to another LRWT meadow reserve – Wymondham Rough SSSI (43/831174), south-west of Wymondham. Rob had not visited this site before, but on first glance it appeared to be similar to Cribb's Meadow. Although the plant life seemed very similar, we could find no sign of *Ophioglossum*. We continued through a wooded area where we found *Dryopteris filix-mas*, *D. dilatata*, *Athyrium filix-femina* and *Asplenium scolopendrium*. We returned to the cars via a second meadow, which also had no ferns but we were delighted to find bee orchids, *Ophrys apifera* and marsh orchids, *Dactylorhiza majalis*. Many thanks to the LRWT for permission to visit this and the other reserves.

After lunch at a garden centre in Cold Overton, we drove to Ketton to see Rob and Dawn's lovely garden, which displayed a good selection of ferns, particularly polystichums and polypodiums. Rob has been very successful in growing ferns from spores and he generously offered some of his latest sporelings to us. The meeting finished with tea and delicious home-made cakes, sitting in the sunny garden.

VERCORS, FRANCE (Leader: Jean-Luc Destombes) – 11-17 July

Saturday 11th – Introduction & arrival — Pat Acock

At the meetings subcommittee of February 2014 I was charged with the task of organising a meeting in the south of France. By the time I arrived home Nick Hards had sent me a website on the Vercors, which mentioned a fern expert, Jean-Luc Destombes. Jean-Luc kindly accepted the challenge (with a little encouragement from his wife Annie, we later found out) and planned this most splendid tour of a little known part of France south-west of Grenoble.

We all made our separate ways to the Hotel Auberge du Furon in the village of Méaudre, where we were greeted by Jean-Luc and Annie who introduced us to our hoteliers, Régine and Gaston Gaultier. After much discussion and with the whole party gathered we went inside to enjoy our evening meal. Jean-Luc gave us a number of helpful leaflets and explained some of the arrangements for the forthcoming week.

photo courtesy: R. Prelli

At Hotel Auberge du Furon, Méaudre, France

Back row: Pierre-Eymard Biron, Yves Perrette, Jean-Luc Destombes, Wim de Winter, Paul Ripley, Patrick Acock, Martin Rickard

Middle row: Paul Sharp, Bridget Laue, Tim Pyner, Andrew Leonard, Annie Destombes, Ashley & Jo Basil, Annie Prelli, Alison Evans, Grace Acock, Hettie van Nes, Hennie Slot, Chris Evans

In front: Alfons Slot, Rémy Prelli

Sunday 12th – Font d'Urle — Paul Ripley

After the usual French breakfast, supplemented by drop-scones and a wide range of jams, we picked up Jean-Luc in St Martin-en-Vercors, where excellent packed lunches had been prepared by the local boulanger.

The Font d'Urle is a vast undulating or folded high limestone plateau, comprising florally rich pasture (*Dianthus*, rampion, veronicas, *Hypericum*, *Gentiana lutea*, *Polygonum bistorta*, thyme, juniper, mullein, etc.), grazed by horses, cattle and sheep. The presence of wolves has been known since 1998 and can be traced back to the Mercantour area; the

sheep are protected by dogs (patous), which we were advised not to approach. In fact, we encountered neither sheep nor dogs, although horses were abundant.

We did a roughly circular walk from our starting point (44°53′54.8″N, 5°19′13.1″E). The ferns were located mainly in sinkholes, small shaded areas, low cliffs or in the small areas of limestone pavement. In the sinkholes we found *Athyrium filix-femina*, *A. distentifolium*, *Dryopteris filix-mas* and *Cystopteris fragilis*. On the low cliff-faces we saw *Asplenium ruta-muraria*, *A. trichomanes* subsp. *quadrivalens*, *A. viride*, *Gymnocarpium robertianum*, *Cystopteris fragilis* and, in shadier areas, *C. alpina*, with its narrower, parallel-sided pinnules and veins ending in a small sinus. Also in shadier areas we found *Polystichum aculeatum* and *P. lonchitis*. A most convincing *P.* × *illyricum* was later confirmed on examination of the, mainly abortive, spores. Near our lunch spot we found a number of unusually large (for us), plants of *Botrychium lunaria*, while in the cracks in limestone pavement we found *Dryopteris villarii*. Some *Asplenium trichomanes* might have been subsp. *pachyrachis* but were too shrivelled for confirmation.

photo: A. Leonard

***Polystichum* × *illyricum* at Fonte d'Urle**

On our return we stopped to admire the amazing view, both of the massif to the east culminating in Le Grand Veymont with glimpses of the pre-Alps (e.g. Les Écrins) beyond, and of the valleys descending to the Rhône to the south-west. We also visited a 'Glacière', a cold, damp cave where snow and ice persist. In fact it was dry, but the coolness made a welcome change from the fiercely hot sun before our return to Méaudre.

Monday 13th – Les Bruyères (a.m.) & Les Combettes (p.m.) **Bridget Laue**

We parked about one kilometre south of Les Baraques-en-Vercors (44°59′50.2″N, 5°19′13.1″E). Again the day started bright and clear and threatened temperatures in the high thirties Celsius; although we were at a lower altitude than on Sunday there was less of a breeze. We met park ranger Eric Charron, who was to be our guide for the morning.

We were set two challenges. The first was to find *Equisetum sylvaticum*. Until ten days earlier, this species had

photo: A. Prelli

Discussing woodland ferns

(*back*) Wim de Winter, Alfons Slot, Jean-Luc Destombes
(*front*) Alison Evans, Paul Ripley, Rémy Prelli, Pat Acock

never been recorded in this southern (Drôme) part of Vercors. However, while reconnoitring for this excursion, it was discovered by our leader [comment by Jean-Luc: it remains to be checked if this spot is the same as that found by Luc Garraud from the Conservatoire Botanique National Alpin some weeks before]. We walked up into Combe Noire, then down into the forest on the western side. The horsetails were not hard to find: they covered an area of possibly two hectares, in the most extensive swathe I have ever seen. It is unusual for *E. sylvaticum* to grow this far south, and they grew taller than usual in this warm climate. Ferns seen in this wood included *Dryopteris dilatata* and *D. carthusiana*, and there was speculation that some plants might be their hybrid.

The second challenge was potentially more difficult. There was a record from ten years previously of the stag's horn clubmoss, *Lycopodium clavatum*, nearby. We walked south past the eighteenth-century farmhouse at les Poudreaux, then climbed into the woods at les Bruyères. Here the terrain became more acidic, with heathers and pine trees. We followed a trail cut through the woods, which is cleared periodically because of the overhead power lines. The *Lycopodium* was found here, in an exposed, sunny but moist area. Close by was *Oreopteris limbosperma*; Hettie, who claimed not to know the common name of this fern, declared (unprompted) that the fronds were lemon-scented!

photo: J.-L. Destombes

Queuing to see *Asplenium lepidum*

Rémy Prelli, Annie Prelli, Chris Evans, Martin Rickard, Kate Culling, Hettie van Nes, Annie Destombes, Tim Pyner, Grace Acock

Returning to the cars, we drove north to Jean-Luc's home, Les Combettes, west of St Julien-en-Vercors (44°59′16.7″N, 5°24′48.8″E). After a picnic lunch in the shade of a tree, we left our cars and walked north into woodland. Notable plants along the way included *Asplenium adiantum-nigrum* and *Polystichum aculeatum*, as well as a lizard orchid (*Himantoglossum hircinum*). Eventually we emerged onto the steep hillside above the Gorges de La Bourne, with the path descending alongside a limestone cliff-face. Climbing along the base of the cliff we were rewarded by finding a diverse array of spleenworts including *Asplenium fontanum*, *A. lepidum*, *A. ruta-muraria* and *A. trichomanes* subspp. *pachyrachis* and *hastatum*. Climbing back through the woods we passed a ruined farmhouse, delightfully overgrown with *A. trichomanes* subsp. *quadrivalens* and *Cystopteris fragilis*. We returned to Les Combettes, tired, but then refreshed by English tea and rhubarb and redcurrant tart: Merci, Annie Destombes!

photo: A. Leonard

Asplenium lepidum

Tuesday 14th – Les Écouges **Rémy Prelli**
(translated by Paul Ripley)

On this French National Holiday (Bastille Day), we met Carole Desplanque, regional manager of the Office National des Forêts, who would be our guide in the Domaine des Écouges (44°10′36.9″N, 5°29′55.3″E), a natural area situated three kilometres to the west of Autrans. This forested area, acquired in 2002 by Isère department and of which part is now an integral nature reserve, is used specifically as a site for environmental education as well as a field laboratory for biodiversity studies. Its past is rich in human activity and our visit had both botanical and historical interest. Situated on the western border of the Vercors, the area is characterised by frequent cloud and high rainfall. At an altitude of between 900 and 1,600 metres, it comprises a layer of sandstone interposed between two strata of limestone cliffs. We were interested essentially in the acid vegetation relating to the sandstone.

The steeply climbing path led us to the heart of the beech/fir forest, supplemented by spruce as a result of forestry operations in previous decades. Related to the high humidity of the area, the understorey was particularly rich in ferns, especially in the small valleys. *Athyrium filix-femina*, *Dryopteris dilatata* and *D. filix-mas* were particularly abundant, but locally *Blechnum spicant*, *Equisetum hyemale*, *Oreopteris limbosperma* and *Phegopteris connectilis* were noted. *Asplenium adiantum-nigrum* was seen very occasionally on banks by the path. Of particular interest, and the subject of much discussion, were *Dryopteris* of the *affinis* group (*D. borreri*, *D. cambrensis* and, very locally, *D. pseudodisjuncta* were identified) and *Polystichum* – the presence of *P. aculeatum*, *P. setiferum* and *P.* × *bicknellii* was established, confirmed by subsequent examination of spores.

On the way, Carole showed us the ruins of a church belonging to a former Carthusian monastery, founded in 1084 and where a community was maintained until the end of the fourteenth century. A little further on, the particular nature of the sandstone had permitted the quarrying of stones for use in mills in this mediaeval period. Archaeological excavation had exposed the site and several incompletely exposed stones enabled us to understand how they were extracted.

After crossing several clearings with *Pteridium aquilinum*, we found a shaded spot on the edge of a meadow for lunch. A post-prandial walk took us to the belvédère du Rivet at 1,000 metres and being on a high cliff it afforded a vast panorama over the plain of the Isère. On the way to this lookout we noticed *Asplenium adiantum-nigrum*.

We then started our return, still in the beech/fir forest, remarkably restored. It has to be remembered that this forested massif was very intensively exploited for charcoal production until the middle of the nineteenth century, and the forest had practically disappeared. *Dryopteris dilatata* was particularly abundant along the length of our return path, with some plants catching our attention for their resemblance to *D. expansa*. However, no true *D. expansa* could be identified. Other species of interest were *Phegopteris connectilis*, and *Dryopteris carthusiana*, which we had not noted in the morning.

The return to the cars was made on a track, along which a remarkable series of species, often new for the day, were seen: *Asplenium trichomanes* subsp. *quadrivalens*, *A. viride*, *Cystopteris fragilis*, *Equisetum arvense*, *E. hyemale*, *E. telmateia*, *Gymnocarpium robertianum*, *Polypodium vulgare*, and a beautiful colony of *Asplenium scolopendrium*.

It remains to thank Carole, whose kindness, enthusiasm and knowledge greatly contributed to the success of the day.

Wednesday 15th – Grottes & Falaises de Choranche, & the Plateau des Coulmes

Wim de Winter

The rocks of the Vercors were formed in the middle Jurassic period by sedimentation at the bottom of an ocean. The deposition of animal material formed limestone. Then in the Cretaceous, higher temperatures combined with shallow waters allowed the development of coral reefs abounding with molluscs, forming the urgonian limestone of the upper part of the massif, more prominently seen in the northern half of the area. At the start of the Miocene, the raising of the Alps resulted in an elevation of more than 2,000 metres and a lateral shift to the west. The folding of these rocks resulted in the Vercors having local synclines and anticlines successively, and also faults because of the hardness of the rock. Subsequent marine transgressions were responsible for secondary sedimentation in the basins, following the widening of the gorges and erosion of the cliffs from run-off. Once formed, severe erosion accentuated the relief and the synclines grew larger, eventually forming valleys such as those of Autrans-Méaudre and Lans-Villard-Corrençon. The dissolution of limestone led to the formation of a terrain characterised by karst formations and sinkholes, pierced with numerous cavities. Where rivers continue to enlarge these cavities, calcareous minerals that had been dissolved in the permeating rainwater are redeposited into spectacular stalagmites and stalactites and other intricate forms.

In the morning Yves Perrette treated us to a private tour through the magnificent caves of Choranche (45°04′20.1″N, 5°23′51.9″E) before opening hours. The thousands of stalactites here are very thin and very fragile. But these wonders of abiotic nature could not make us forget that we had come to find ferns, and indeed some were already found before entering the underworld. On the path to the caves' entrance were *Asplenium fontanum*, *A. scolopendrium* and *A. ceterach*, this last species frequent and shrivelled. Along the footpath to a nearby smaller cave we saw many more, with a luxuriant *A. scolopendrium*, *A. trichomanes* subsp. *quadrivalens* and an occasional subsp. *pachyrachis*, one or two juvenile *A. viride*, and a few *A. ruta-muraria* that were suspected to be subsp. *dolomiticum*, but Rémy's spore measurements afterwards revealed that it was subsp. *ruta-muraria* after all. It was not an *Asplenium*-only party, for in addition *Cystopteris fragilis*, *Gymnocarpium robertianum* and *Adiantum capillus-veneris* were spotted.

To have our lunch we moved a little way further on and a long way upward onto the Plateau des Coulmes to a piece of grassland on top of the cliffs. The butterflies were exciting, but the only pteridophytes I noted were *Asplenium trichomanes* subsp. *quadrivalens* and a *Polypodium interjectum*.

We returned to the caves' car park and took a steep, winding path up to the bottom of the cliff-face. In a small cave mouth we again detected *Asplenium fontanum*, as well as *A. trichomanes* subsp. *quadrivalens*. A little way up from here the cliff rose as a smooth, bare limestone wall several scores of metres above us. It was leaning forward and hanging over us in places and oriented straight towards the sun at that time of the day; I felt as though I was at the focal point of a solar power collector. Surprisingly, here it was that we found plenty of well developed (over 40-centimetre-long fronds) plants of *Adiantum capillus-veneris*, profiting from the water seeping out of the fissures in the cliff. Some *Asplenium trichomanes* subsp. *pachyrachis* was also seen, but the major attraction was a small number of plants of *A. lepidum*. The best part was kept for last, at what had to be our turning point due to the heat, time and terrain. At least one plant of the hybrid *A.* × *javorkae* (*A. lepidum* × *A. ruta-muraria*) was identified, however, great was our disappointment afterwards when the spores proved to be well developed so it must have been 'only' *A. lepidum*.

photo: A.J. Evans

Choranche cliffs

Paul Ripley, Wim de Winter, Yves Perrette, Andrew Leonard,
Jean-Luc Destombes, Rémy Prelli, Tim Pyner

Thursday 16th – Réserve des Hauts Plateaux **Tim Pyner**

This reserve, located in the heart of the Vercors, is the largest land reserve in France, covering around 17,000 hectares. The reserve includes a diverse range of habitats, including montane and alpine zones as well as forests and pastures at lower levels. Flora and fauna abound and many species of ferns and lycophytes had been recorded.

We met our guide, Bernard Fourgous, on another hot and sunny day. Thankfully we would be mostly walking in shade and conditions were comfortable, although the abundance of flying insects was surprising and somewhat irritating. While waiting at the main car park at the Maison Forestière de la Coche (44°53′11.0″N, 5°26′32.8″E) we found *Dryopteris filix-mas*, *Equisetum arvense* and a few plants of *Asplenium fontanum*. Once Bernard arrived we were able to drive several kilometres along a forest track and park deep within the forest (44°52′22.7″N, 5°26′11.5″E) at an altitude of 1,470 metres. The forest was dominated by two conifer species, Norway spruce (*Picea abies*) and silver fir (*Abies alba*). Broad-leaved shrubs and trees such as beech (*Fagus sylvatica*), sycamore (*Acer pseudoplatanus*), whitebeams and rowan (*Sorbus* spp.) occurred in smaller quantities. The herbaceous ground flora was very rich with, at this particular time of year, vast numbers of a bright yellow cow-wheat (perhaps *Melampyrum sylvaticum*) dominating, coating the rocky ground in a glorious golden haze. Other common flowering plants included *Gentiana lutea*, *Digitalis lutea*, *Astrantia major* and *Aconitum lycoctonum*.

Leaving the cars, we commenced a slow walk along the Route de Brutinel and Route de La Baume, admiring abundant *Polystichum aculeatum* and *P. lonchitis*. Keeping a watch out for possible hybrids we soon found some plants that appeared intermediate. Throughout the day we repeatedly encountered plants that appeared to be *P.* × *illyricum*, and their identity was later confirmed following microscopic examination of spores from several different plants. *Asplenium viride* was frequent on rocky banks, with occasional patches of *Gymnocarpium robertianum*. *Athyrium filix-femina*, *Dryopteris filix-mas* and *D. dilatata* were also frequent but as we slowly gained altitude at around 1,515 metres *D. dilatata* almost disappeared and its ecological niche was filled by *D. expansa*. I had not seen

D. expansa before and was very pleased to be able to examine plants and compare it with *D. dilatata.* Stalked glands were seen on the frond axes of *D. dilatata* that appeared to be absent from *D. expansa.* The utility of this character was discussed but nobody in the group knew if this was a consistent difference. Further investigation is required! A couple of particularly large plants were thought to be possible hybrid candidates and later spore checking confirmed that one was indeed *D. × ambroseae.* On a shady slope we were surprised to see several well grown plants of *Blechnum spicant* rooted in deep leaf litter that presumably isolated them from the limestone rock below. Other ferns seen along this trail included frequent *Cystopteris fragilis* and scarce *Polypodium vulgare.*

photo: A. Leonard

Polystichum × illyricum

Lunching on a shady slope we soon realised that we were sitting amongst a large colony of *Phegopteris connectilis.* Moving on, we reached an area of limestone karst. *Asplenium ruta-muraria* and *A. trichomanes* subsp. *quadrivalens* were seen here, and Pat clambered to a higher ridge and found a small group of *Dryopteris villarii.* Stopping for a rest at Font de la Baume we saw more *Asplenium viride* and *Cystopteris fragilis* on shady rocks. Surprisingly we had not yet seen any members of the *Dryopteris affinis* group but here one plant of *D. cambrensis* was found.

On our way back to the cars Rémy spotted on a mossy ledge a couple of *Huperzia selago* that we had overlooked earlier.

Friday 17th – Autrans, La Glacière, Pas de la Clé **Hettie van Nes**

Our guide for the day was Pierre-Eymard Biron, manager of the Réserve des Hauts Plateaux. A reduced party assembled north of Autrans at Gève (45°12′42.84″N, 5°33′43.14″E). The trail to Pas de la Clé has a turn off to La Glacière that ends in a deep and large 'collapse doline' (type of sinkhole) where snow often stays even in summer. One can climb down the steep slope to an underground glacier of crystalline ice. During the nineteenth century ice from here was sent to Grenoble cafés. There was a discussion about whether or not we would make the detour to the glacier on our walk to Pas de la Clé. Rémy said it would take an extra hour but would be both 'trés jolie' and 'plus sportive'. It was agreed that we would decide when the time came, as some of us wanted to see the glacier and others to proceed straight to Pas de la Clé.

Long before reaching the decision point at the turn off, some of the group stopped to look at *Dryopteris expansa*, discovered by Rémy near the *Gymnocarpium dryopteris* that Paul Sharp had found – Alison checked and it didn't have glands. *Asplenium viride* and *Huperzia selago* were also noted and Chris Evans spotted *Cystopteris fragilis*. Another curiosity was seen: *Polystichum lonchitis*. Martin strongly recommended me to put it in the report of the day: "I would mention it", he said, "because it is very rare in Britain, while species like *Asplenium trichomanes* are very common, so don't mention that one." I told him I wouldn't.

Chris patiently sat amid the bags of his fellows while they climbed down to the glacier. On the steep, rocky slopes of the doline the best finds were *Cystopteris alpina* and both

Gymnocarpium dryopteris and *G. robertianum*. Eventually a shout of joy came from below, making the three Frenchmen, who were already halfway back up, hesitate. "Il dit qu'il y a un lycopode", Rémy translated. They had to return of course, leaving Chris waiting a while longer because if this really was *Lycopodium annotinum*, it would be one of the highlights of the day. The probable *L. annotinum* could be seen on the rock walls near the glacier but was not accessible. Meanwhile Chris wondered what could be seen with some good binoculars. "I have found a new *Asplenium trichomanes* subsp. *hastatum* here", he shouted.

We made our way to Pas de la Clé on the northern end of the Vercors plateau, a popular viewpoint over the Isère Valley in both summer and winter, and were reunited with those who chose not to visit the doline. We saw the remains of a channel carved into the rocks, formerly used for sliding tree-trunks down to the river.

After lunch we walked through woods and meadows and turned off to visit the remains of an RAF plane that fell in 1944; there was a memorial to the seven men that died. Further on a patch of limestone pavement had a colony of *Lycopodium annotinum* that was accessible (45°13′59.28″N, 5°33′35.64″E). Having completed our circular route we returned to the cars, passing a field of *Equisetum palustre* that we had missed in the morning. The *Lycopodium* remained the highlight of the day, and not Chris's *Asplenium*, which Alison identified as a rather lobed *A. viride*.

Friday 17th – Gorges du Verdon

Pat Acock

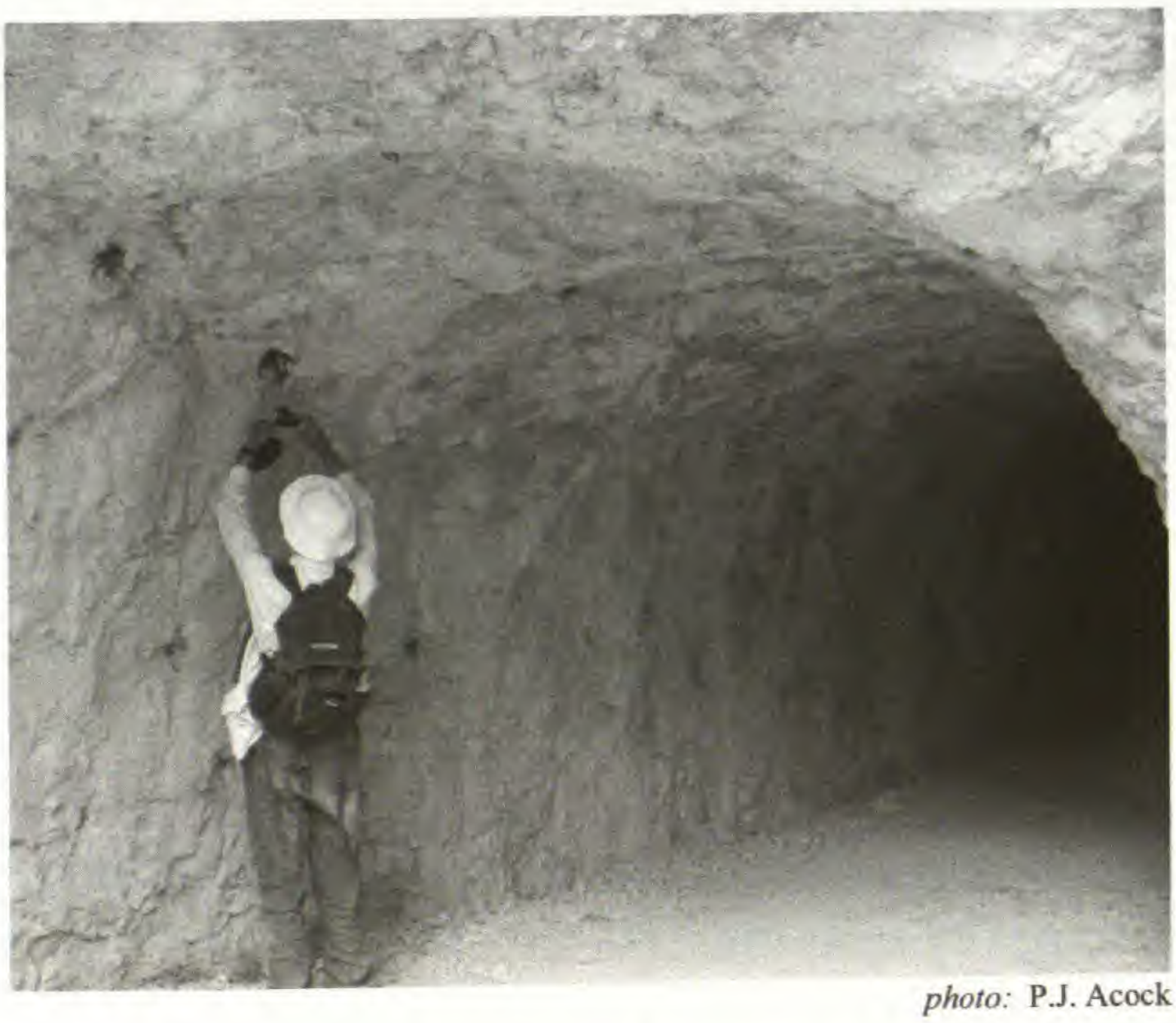


photo: P.J. Acock

Paul Ripley photographing *Asplenium jahandiezii* at a tunnel entrance, Gorges du Verdon

As an alternative, five of us decided to take the long journey to the Gorges du Verdon (also called Grand canyon du Verdon), as a few of us had long wanted to see *Asplenium jahandiezii*. This species has no close allies in Europe, its nearest relative being in the west of Asia. We set off at 7 a.m. and it took a full five hours to reach the very impressive limestone gorge. After parking below Point Sublime Belvedere at the end of road D23A (43°47′35.5″N, 6°23′54.9″E), we entered this part of the gorge through one of the tunnels made as part of an old planned hydroelectric project. We were rewarded on the tunnel wall at the entrance with two of the largest *A. jahandiezii* specimens that we were to see. We all dispersed as we proceeded about twenty metres above the river along ledges and further tunnels. On the sides of entrances to other tunnels occasional plants were seen. We had agreed a rendezvous time back at the cars and turning back at half time I met up with Paul Ripley. After scrambling a little on screes above and below the path we showed each other plants we had found. There was a series of caves above the path and it was at one of these, while taking pictures of *A. jahandiezii*, that we found yet more plants

adpressed to the roof of the cave entrance. Tired, happy and very thirsty, with the temperature about 47 degrees Celsius, we emerged at 4 p.m. to find the others already at the cars.

We returned to the hotel to find anxious members wanting me to sort out their bills, but I really needed my dinner...

photo: A. Leonard

***Asplenium jahandiezii*, Gorges du Verdon**

Conclusion **Pat Acock**

We were so fortunate in finding Jean-Luc Destombes, who was a most efficient and congenial host. He had planned a well balanced meeting full of interesting history, beautiful vistas and varied ecology that allowed us to see the lovely ferns and other natural wonders of the region. We would like to thank Annie his wife who encouraged him and allowed us into their beautiful house and garden as well as feeding us. Many thanks also to the team of experts that Jean-Luc had gathered from the Parc Naturel Régional du Vercors (Bernard Fourgous, Eric Charron, Pierre-Eymard Biron), from the Office National des Forêts (Carole Desplanque) and from the EDYTEM Laboratory (Yves Perrette). They greatly enhanced the tour with their local and expert knowledge. Finally, I would like to thank our hoteliers, Régine and Gaston Gaultier. Bemused by our antics, they supported us with their quiet efficacy, cordial manner and wonderful food, thus doing so much to enhance the excursion.

Ferns seen in Vercors, France, July 2015

	12th	13th		14th	15th			16th	17th	
Start location	Font d'Urle	Les Bruyères	Les Combettes	Les Écouges	Choranche a.m.	Plateau des Coulmes	Choranche p.m.	Hauts Plateaux	Pas de la Clé	Gorges du Verdon
Adiantum capillus-veneris					+		+			
Asplenium adiantum-nigrum			+	+						
A. ceterach					+		+			
A. fontanum			+		+		+	+		
A. jahandiezii										+
A. lepidum			+		+		+			
A. ruta-muraria	+		+		+		+	+	+	+
A. scolopendrium			+	+	+					
A. trichomanes subsp. hastatum			+				+			
A. trichomanes subsp. pachyrachis	?		+		+		+			
A. trichomanes subsp. quadrivalens	+	+	+	+	+	+	+	+	+	+
A. viride	+			+	+		+	+	+	
Athyrium distentifolium	+									
A. filix-femina	+	+	+	+				+	+	

Start location	12th	13th		14th	15th			16th	17th	
	Font d'Urle	Les Bruyères	Les Combettes	Les Écouges	Choranche a.m.	Plateau des Coulmes	Choranche p.m.	Hauts Plateaux	Pas de la Clé	Gorges du Verdon
Blechnum spicant		+	+	+				+		
Botrychium lunaria	+									
Cystopteris alpina	+								+	
C. fragilis	+	+	+	+	+			+	+	+
Dryopteris borreri		+	+	+						
D. cambrensis			+	+				+		
D. carthusiana		+	+	+						
D. dilatata		+	+	+				+	+	
D. expansa								+	+	
D. filix-mas	+	+	+	+	+			+	+	
D. pseudodisjuncta				+						
D. villarii	+							+		
D. × ambroseae								+		
D. × complexa				?						
D. × convoluta				?						
D. × deweveri		?								
Equisetum arvense		+	+	+				+		
E. fluviatile				+						
E. hyemale				+						
E. palustre									+	
E. ramosissimum										+
E. sylvaticum		+								
E. telmateia				+						
Gymnocarpium dryopteris									+	
G. robertianum	+			+	+			+	+	
Huperzia selago								+	+	
Lycopodium annotinum									+	
L. clavatum		+								
Oreopteris limbosperma		+	+	+						
Phegopteris connectilis				+				+		
Polypodium interjectum					+	+				
P. vulgare		+	+	+		+		+		
Polystichum aculeatum	+	+	+	+				+	+	
P. lonchitis	+							+	+	
P. setiferum				+						
P. × bicknellii				+						
P. × illyricum	+							+		
Pteridium aquilinum		+	+							

CRICCIETH, NORTH WALES – 4-7 September

Introduction — Martin Rickard

As an experiment I chose a long weekend for this meeting based in Criccieth, primarily to make the trip worthwhile for any members coming a long distance. There were, however, other advantages – it also gave us the chance to see more ferns and it avoided long distance travel during the traffic peaks of Friday and Sunday afternoons/evenings. In the event, the fine weather for the whole weekend (almost!) made quite serious ferning somewhat easier and enabled us to record what may well be a record number of taxa for a UK BPS meeting. At the last count I believe a total of 46 taxa were recorded as wild plants.

Friday 4th – Cwm Llefrith & Moel yr Ogof — Tim Pyner

On the previous evening Martin had promised a 'gentle stroll' as an introduction to the mountains of Snowdonia. As I live at sea level and my most strenuous daily climb is up to my bedroom, by the evening I was feeling rather apprehensive about the 'more strenuous' walks planned for later that weekend. However, I did survive and was rewarded with stunning landscapes, gorgeous views and fascinating rare ferns.

The group gathered south-west of Beddgelert at the remote farm, Cwrt Isaf (23/539463). The weather was misty, with low cloud and drizzly rain, however, conditions gradually improved during the day. The first ferns seen were on the ruins of a small building: hart's tongue (*Asplenium scolopendrium*), wall rue (*A. ruta-muraria*) and maidenhair spleenwort (*A. trichomanes* subsp. *quadrivalens*). We climbed steadily up Cwm Llefrith, following the stream named Afon Cwm-llefrith and heading for the rocky heights of Moel yr Ogof. As one would expect, bracken (*Pteridium aquilinum*) was the most obvious fern, however, male (*Dryopteris filix-mas*), broad buckler (*D. dilatata*) and lady (*Athyrium filix-femina*) ferns were frequent along the stream. Approaching the first rocky area hard fern (*Blechnum spicant*) started to appear and the first of many colonies of beech fern (*Phegopteris connectilis*) was noticed.

photo: A.J. Evans

Cwm Llefrith, Snowdonia

Pat Acock, Roger Golding, Alison Paul, Sue Dockerill, Lindsey Holleworth, Michael Radley, Jo Basil, Brian Dockerill

Once the group had gathered together, Martin pointed to a rocky outcrop some distance away and announced that Killarney fern (*Trichomanes speciosum*) was to be found there. Naturally everybody headed across and started searching in the wrong place. However, we did see fir clubmoss (*Huperzia selago*), black spleenwort (*Asplenium adiantum-nigrum*), wall rue, two subspecies of maidenhair spleenwort (*A. trichomanes* subsp. *trichomanes* and subsp. *quadrivalens*), hard shield fern (*Polystichum aculeatum*), brittle bladder fern (*Cystopteris fragilis*) and some small colonies of Wilson's filmy fern (*Hymenophyllum wilsonii*). Lemon-scented fern (*Oreopteris limbosperma*) was abundant by the many streams and damp rock ledges and both common and intermediate polypody (*Polypodium vulgare* and *P. interjectum*) occurred, the former becoming more frequent as we gained altitude. The

three common species of the *Dryopteris affinis* group (*D. affinis s.s.*, *D. borreri* and *D. cambrensis*) were detected by Alison Evans and Roger Golding. Eventually Martin arrived and directed us to the small hollow where the Killarney fern was located. About twenty fronds could be counted deep within the fissure. This colony has been known for a long time and it is amazing how this fern can survive in the most unlikely places. (Incidentally the currently accepted 'correct' name for Killarney fern is *Vandenboschia speciosa*. This is most helpful in regard to clarity when discussing 'trichomanes' – Killarney fern and maidenhair spleenwort, particularly when growing close to each other as they were here.)

photo: F.J. Rumsey

***Trichomanes speciosum* on Moel yr Ogof**

photo: M.H. Rickard

***Asplenium* × *alternifolium* on Moel yr Ogof**

We stopped for lunch by some scree with clumps of mountain male fern (*D. oreades*) and tufts of parsley fern (*Cryptogramma crispa*) among the loose rocks. Alison Paul spotted a small colony of lesser clubmoss (*Selaginella selaginoides*).

After lunch we started out in search of some true British rarities. The first to be found was a large clump of the rare hybrid spleenwort *Asplenium* × *alternifolium*. Both parents, forked spleenwort (*A. septentrionale*) and *A. trichomanes* subsp. *trichomanes* were nearby. The hybrid was growing half hidden on an inaccessible ledge and is apparently the only plant currently known in Great Britain. Several people attempted to photograph it from an awkward cliff perch with varying degrees of success. Moving on we started searching for the second great rarity, oblong woodsia (*Woodsia ilvensis*). The first plant found was quite frankly disappointing, however, thorough searching revealed further more photogenic plants in easily accessible positions. About 20 plants were eventually found in five separate colonies, some of them down a steep gully. Happily one young plant was seen, demonstrating that natural regeneration is taking place. Other species noticed here were stag's horn clubmoss (*Lycopodium clavatum*), alpine clubmoss (*Diphasiastrum alpinum*), green spleenwort (*Asplenium viride*) and a small colony of oak fern (*Gymnocarpium dryopteris*) hiding beneath a large rock.

photo: R. Golding

***Woodia ilvensis* on Moel yr Ogof**

Our final search of the day was for holly fern

(*Polystichum lonchitis*) on steep, slippery slopes. Most of the group failed to see it but Martin and a couple of other brave (foolhardy?) members managed to find a single clump of several plants high up the cliff-face.

So after a tough introduction to Snowdonia, I returned to the hotel with aching knees but very satisfied with what I had seen. Yes I was apprehensive but also excited about what was to come over the following days.

photo: M.H. Rickard

***Polystichum lonchitis* on Moel yr Ogof**

Saturday 5th – Touring in the Conwy Valley
Peter Blake

Saturday proved to be a clear, sunny day when the group set off from Criccieth to Dwygyfylchi on the North Wales coast west of Conwy. Martin knew of two colonies of a plumose *Polypodium cambricum* growing here on separate gate-posts. It was believed that these had originated from plants taken from the walls of Conwy town and it is marketed as *P. cambricum* 'Conwy'. A walk through the village revealed rustyback (*Asplenium ceterach*) on garden walls, as well as the expected North Wales ferns, and also led to a meeting with a resident who expounded, at length, on her belief that it was the spores from her garden ferns that had caused her dogs to have cancer! She was not to be shaken in her belief, one which is held not uncommonly.

photo: A.M. Paul

***Polypodium cambricum* 'Conwy' in Dwygyfylchim near Conwy**

Having driven through the village towards the top of the Sychnant Pass, a short walk from the car park took us under some overhanging rocks, in the cracks of which grew *Asplenium obovatum* subsp. *billotii*. These plants were known to some members of the group and had been observed over many years; David Hill said that one year he had counted 32 plants. A hunt for *Pilularia globulifera* in two hilltop pools sadly proved unsuccessful. A short drive through the wood to the edge of the Snowdonia National Park provided a beautiful spot for lunch and the finding of *Dryopteris carthusiana* as well as *Equisetum fluviatile*, which pleased Pat Acock!

A visit to Aberconwy Nurseries was next. There were many alpines and several xeric ferns for sale in addition to small plants of *Asplenium septentrionale* that were quickly sold! Tea at the National Trust's Bodnant Garden followed but there was no time to look around, so two members returned the next day.

photo: A.M. Paul

***Asplenium septentrionale* near Llanrwst**

The group then drove to the minor road west of Gwydir Castle in Llanrwst. Here Martin knew of a road-side wall with a remarkably large population of *Asplenium septentrionale* (23/7906.6126). Many photos were taken of these. *Polypodium vulgare* also grew on the wall along with *Dryopteris oreades* and *Asplenium trichomanes* subsp. *quadrivalens* but there was no sign of the *A.* × *alternifolium* that we optimistically searched for.

We drove on to Llyn Sarnau in the Gwydir Forest Park (23/778591). In the marsh around the small lake was a small colony of *Osmunda regalis*, and in the spoil of the disused lead mines were several rather odd *Dryopteris affinis*, possibly affected by the high metal content of the soil. Time did not permit much exploration here as we were all booked in for dinner at the Marine Hotel, Criccieth.

Sunday 6th – Cwm Glas Bach, below Clogwyn Station, Snowdon **Roger Golding**

photo: A.M. Paul

Perilous *Woodsia alpina* site on Snowdon

Jo Basil, Michael Radley, Roger Golding

The first obstacle we faced was finding parking – we had not reckoned on spectators to a cycle road race taking up much of the space along the Pass of Llanberis. In the end most of us parked part-way up the Pass (23/6205.5709), while Tim Pyner gallantly volunteered to leave his passengers and drive all the way into Llanberis to park. Unfortunately, this meant he was unable to join the rest of us in time to make it up to our objective. This was two-fold: a form of *Cystopteris fragilis* that has some similarities to *C. alpina* (work is in progress on a publication about this by David Tennant and Fred Rumsey), and *Woodsia alpina*. There are a number of records for the latter in this area of Snowdon, and we had an eight-figure grid reference for one colony so we had good hopes of finding it.

Having crossed the river, we set off up the valley and quickly picked up a range of acid-loving species such as *Blechnum spicant*, *Phegopteris connectilis* and *Cryptogramma crispa*, as well as the clubmosses *Huperzia selago*, *Lycopodium clavatum*, *Diphasiastrum alpinum* and *Selaginella selaginoides*. As the going got steeper, we encountered craggy outcrops with a few more base-rich crannies harbouring normal forms of *Cystopteris fragilis* and *Asplenium viride*, and *Hymenophyllum wilsonii* was spotted. Other ferns noted on the way up were *Pteridium aquilinum*, *Athyrium filix-femina*, *Dryopteris filix-mas*, *D. borreri*, *Oreopteris limbosperma*, *Gymnocarpium dryopteris* and occasional *Asplenium scolopendrium*. Steep and slippery slopes led to the main cliffs where we scoured the area within the grid reference for *Woodsia alpina* without success. Broadening the area of our search, Martin eventually

photo: R. Golding

***Woodsia alpina* on Snowdon**

found it substantially south of where we expected. (This apparently was the colony known to the vice-county recorder, but the grid reference was significantly different from the one we had.) Nevertheless, it was a lovely healthy patch consisting of five or six individual crowns, and eagle-eyed Michael Radley spotted another small patch of two crowns a couple of metres higher up the rock.

Time constraints meant that we had to head back down without going any higher to check out sites where I had previously seen the *Cystopteris* taxon, although a couple of plants seen did appear to approach this form. We were all very happy to have seen *Woodsia alpina*.

In the late afternoon we all met up again in Llanberis, where Robbie Blackhall-Miles and his partner Ben Ram run a nursery called Fossil Plants, which specialises in plants that have an early fossil record – from between 400 and 66 million years ago. The tiny back garden of their cottage is home to what is probably the smallest recognised Botanical Garden in the world. Packed into this tiny space was an extraordinary collection – proteas, banksias, magnolids, ferns, clubmosses – including *Huperzia selago* and *Lycopodium clavatum* in the 'living roof' of their shed – and much more. After very welcome tea and cakes, we took it in turns to be shown around (as there was only space for a few at a time). One fern that particularly caught my eye was a magnificent *Polystichum proliferum* with fronds about twice the size of the one in my garden. Tree ferns fought for space with cycads and small trees such as the Wollemi pine, *Wollemia nobilis*. It was very difficult to tear ourselves away from all this!

Sunday 6th – Alternative day: Anglesey **Bryan Smith**

Thinking that a long haul up Snowdon would be beyond our capabilities, four of us ventured on to Anglesey for more-gentle ferning. Having just got on to the island, and before beginning serious searching, we felt the need for a morning coffee and pulled into the Panton Arms, Pentraeth (23/524784). Apart from refreshment, we were rewarded with a spectacular colony of *Asplenium ceterach*, which filled a length of about ten metres of the space between the wall and the roof apex of an outbuilding.

After waiting for the passing of the Round Britain cycle race, we reached our first site – Pentraeth Wood (23/534784), as recommended by Dick Hayward. Within a few metres of the road we found a lot of very large *Asplenium scolopendrium* (including a number of bifurcated forms), *Dryopteris affinis*, *D. borreri*, *D. dilatata*, *Polystichum setiferum* and *Polypodium interjectum* (including some with angular form). Heading deeper into the woods, we also found *Blechnum spicant*, *Dryopteris filix-mas* and *Pteridium aquilinum*.

After lunch, and on our way to our next location, we spotted large amounts of *Equisetum telmateia* along the side of the A5025 near Benllech. Our next stop, as recommended by Martin, was Lligwy Woods (23/493855), a classic location for *Polypodium cambricum*. Entering the woods through an iron gate on the A5025, there was a magical feel of an old, but not much visited dank place. There were certainly some spectacular colonies of polypodiums, particularly on a rocky outcrop. Uncertain of our ability to distinguish the various forms, we took some fronds, which Martin later confirmed as *P. cambricum*, and possibly also *P.* × *shivasiae*, for which this is also a classic site. Other ferns noted in the woods were *Asplenium scolopendrium*, *A. trichomanes* subsp. *quadrivalens*, *Blechnum spicant*, *Dryopteris affinis*, *D. borreri*, *D. dilatata*, *Polystichum setiferum* and *Pteridium aquilinum*.

Monday 7th – Ceunant Llennyrch & Afon Maesgwm **Mike Canaway**

Ceunant Llennyrch was designated as a Site of Special Scientific Interest for its Atlantic bryophytes and therefore its cool and wet microclimate also provides an ideal habitat for ferns. It lies within the curtilage of the larger Woodland Trust reserve of Coed Felinrhyd, a semi-natural ancient woodland. Much more information is available on the Woodland Trust website (www.woodlandtrust.org.uk; search under Coed Felinrhyd). Ceunant Llennyrch forms the steep-sided valley of Afon (river) Prysor surmounted by the waterfall and plunge pool of Rhaeadr Ddu. The Woodland Trust has created a loop footpath, which enables nearly all of the ferns to be viewed from the path without life-endangering forays.

We met on a pleasant, calm day with sunny intervals at the small lay-by near the hydroelectric power station (23/653396). Members were immediately attracted to ferns on the opposite side of the road where a wide roadside embankment held *Athyrium filix-femina*, *Blechnum spicant*, *Dryopteris affinis* subsp. *affinis*, *D. borreri*, *D. cambrensis*, *D. dilatata*, *D. filix-mas*, *Polypodium vulgare* and *Pteridium aquilinum*. After members were brought together by Martin Rickard for an initial briefing, we set off for the reserve entrance a couple of hundred yards away over the river bridge where we observed *Asplenium ceterach*, *A. trichomanes* subsp. *quadrivalens* and *Polypodium interjectum* growing on a wall near the bridge. On entering the reserve *Asplenium obovatum* subsp. *billotii* was seen growing in the wall nearby and also *A. adiantum-nigrum* and further plants of *Dryopteris cambrensis*, some of which were affected by the smut moth. Giant plants of *Blechnum spicant* with reproductive fronds about 75 centimetres tall graced the side of the path along with the first *Oreopteris limbosperma*. One member made a foray into the valley bottom to look for *Osmunda regalis*, with the reward of a couple of small plants. Heading higher, with dappled sunshine coming through the trees, we saw the first of many plants of *Phegopteris connectilis* and our first small *Dryopteris aemula*. This was followed by some much larger and beautiful plants of *D. aemula* higher up together with *Hymenophyllum tunbrigense*, first growing on a nearby rock and also on the base of a birch tree. There followed a couple of ferns that gave rise to some head scratching, the first being a *Dryopteris borreri* plant that had pinnules with markedly rhomboid teeth (speculatively morphotype *rhombidentata*) and another *D. affinis* that members referred to as var. 'oh my God', which had glossy but widely spaced pinnae, some of which were twisted and forked as well. No definite conclusion was reached on this one.

Having reached the highest point of the footpath, we crossed the river above the waterfall to find a party of trainee physical education teachers abseiling down the side of the waterfall into the plunge pool below. On the other side of the valley we observed three plants of *D. affinis* subsp. *paleaceolobata* before following the path down to the edge of the pool below the waterfall where we took lunch on its stony beach, entertained by the antics of the would-be PE teachers dropping into the water. Nearby were plants of *Hymenophyllum wilsonii*, *Polystichum aculeatum*, *P. setiferum* and further *D. aemula*. After lunch Martin led us on a short foray about 150 metres below the waterfall to view a large colony of *Osmunda regalis* growing in a natural habitat and clearly regenerating, with a number of

photo: B.D. Smith

***Osmunda regalis* site at Ceunant Llennyrch, Snowdonia**

Peter Blake, Martin Rickard, Lindsey Holleworth, Paul Ripley, Nick Lodge, Gill Smith, Alison Paul, Alison Evans, Roger Golding

sporelings growing up (23/665390). There were probably 50 plants in total, some with four-foot plus fronds. We regained the main path, which eventually led into farmland and then to a minor road leading back to the starting point. However, before descending the road Martin directed us to look at a rock outcrop nearby where he had seen *Asplenium obovatum* long ago. This was duly re-found at the foot of a rock-face (23/666392) and also spotted on a nearby wall. We returned to the cars and headed to the Oakley Arms near Maentwrog for a welcome tea break.

After the refreshments we went up a narrow lane to a point near Afon Maesgwm (23/635440). There we parked and headed down a track to an area of slate waste where we observed *A. ceterach*, *A. trichomanes* subsp. *quadrivalens* and *Cryptogramma crispa* (23/633442). Following a wall downwards along a woodland edge we observed *A. scolopendrium*, some fine plants of *C. crispa* – with particularly well developed reproductive fronds – growing on the wall, *Dryopteris borreri*, *D. dilatata*, *D. filix-mas*, *Phegopteris connectilis*, *Polystichum setiferum* and *Oreopteris limbosperma*. At the bottom of the field the more resolute members scaled a tricky barbed-wire fence to battle uphill through tall *Pteridium aquilinum* to reach a rocky outcrop on which grew several plants of *Asplenium septentrionale*. This same colony had been recorded on a BPS meeting some 50 years earlier! We returned towards the cars via the woodland where there were further examples of the common ferns reported above, together with *Dryopteris affinis* subsp. *affinis*. When we had all returned to the cars, as this was our last event, Bryan Smith expressed the gratitude of the group to Martin Rickard for the high quality of the outings he had arranged for us and for organising such a memorable and informative meeting, which we all applauded.

photo: A.J. Evans

Criccieth meeting participants near Afon Maesgwm

Mike Canaway, Roger Golding, Michael Radley, Jo & Ashley Basil, Martin Rickard, Peter Blake, Alison Paul, Lindsey Holleworth, Paul Evans, Paul Ripley, Christine Mullins, Pat Acock, Tim Pyner, Bryan Smith, Brian & Sue Dockerill
Seated: Nick Lodge, Gill Smith

(Not in photo: Michael Radley. Dick & Judy Hayward, Tony Pearsall and David Hill were also present for part of the meeting.)

LECTURE MEETINGS AND DAY VISITS

SPRING INDOOR MEETING – NESS BOTANIC GARDENS, WIRRAL, & WORLD MUSEUM LIVERPOOL – 11-12 April

Alison Evans

Saturday's meeting was held in the Lecture Theatre of Ness Botanic Gardens, on the Wirral in Cheshire. Our president, John Edgington, opened the proceedings by welcoming us and encouraging us to make the most of a reduced entry fee to explore the gardens at lunch-time.

Our key-note speaker was Prof. Dianne Edwards, president of the Linnean Society, with a lecture entitled 'In the footsteps of Manton: spores and early land plant evolution'. In order to survive on land, plants needed to develop water absorption and conduction mechanisms, and also a cuticle with stomata to control water loss, thereby maintaining an internally hydrated environment. They also developed sporopollenin-impregnated spores, and in the earliest plants these were in pairs or dyads, rather than tetrads. Fossils of very early land plants called *Cooksonia*, found in the Welsh borders in Lower Devonian deposits, show that they had turgor-operated stomata. The spores changed over time, and rocks can be dated by the type of spore found in the fossils in the rocks.

After coffee, Rob Cooke, BSBI *Polypodium* referee, explained what we should be looking for in possible hybrids. Poor development of sori is not in itself an indication of hybridity, but is more to do with growing conditions. Well-developed sori and sporangia are needed in order to determine the species and hybrids of this genus.

Michael Hayward then gave us a 'taster' of his new Special Publication *The Jones nature prints*, which comes with a CD containing pictures of all the prints.

Most of us took the opportunity to visit the garden at lunch-time, making the most of the sunny weather, and admiring more than 30 taxa of ferns and equisetums growing there. Following the AGM and tea-break, Liz Evans gave us a guided tour of our new website, and told us how we can be involved with providing content. She also highlighted the various BPS social media platforms, including Facebook, Twitter, Instagram and Flickr. Yvonne Golding rounded off the day with an explanation of the photographic monitoring project, encouraging us to monitor fern colonies and sites over time by way of repeated photographs. Thank you to Yvonne, and Bryan and Gill Smith, for organising a very successful day.

On Sunday morning members had the opportunity to visit World Museum Liverpool's Herbarium, and the BPS Archive, which had very recently moved here from Manchester Museum. Wendy Atkinson, Assistant Curator, had helped us in advance to select herbarium sheets from the Liverpool collection, and Michael Hayward, our new Archivist, had selected items from the Archive to display on the work tables in the Herbarium office. Donna Young, Curator of the Herbarium, took two parties around the plant collection, the collection of botanical books and models, and the Archive Room. Photographs of early and notable members of the Society attracted much attention, as did the beautifully presented herbarium sheets of pteridophytes, and the various historic albums of pressed specimens. The tours took rather longer than scheduled, such was the interest shown by members, so some of us arrived at Michael Hayward's home rather late for lunch! A tour of his garden rounded off a very productive and interesting weekend.

photo: A.J. Evans

Alison Paul & Donna Young in the Herbarium at World Museum Liverpool

CULTIVAR MEETING, OXFORDSHIRE – 18 July Peter Tindley & Julian Reed

Alistair and Margaret Urquhart welcomed us to their immaculate garden in Kidlington. Down the left side of the garden was a striking collection of *Asplenium scolopendrium* 'Golden Queen'. We also admired close by a specimen of *Dryopteris stenolepis* and a stunning *Polystichum setiferum* 'Gracillimum'. On the other side of the garden was a magnificent crested form of *P. aculeatum* from Ken Trewren. Just behind the glasshouse was a plant of *Athyrium filix-femina* 'Fibrex', very attractive because of its neat and regular cruciate pinnae and beautiful even habit. It is apparently sterile but some of us are trying to see if it will reproduce by apospory. In the glasshouse one could hardly miss a *Cyathea medullaris* trying to push off the roof. A number of us then spotted a depauperate *Polystichum*, which looked predictably odd, with some pinnae complete and some non-existent. At the back of the garden were some superb ramose *Asplenium scolopendrium* and also a large area of polypodiums that were not yet up. Other ferns of note included *Athyrium filix-femina* 'Axminster' and 'Clarissima'. Further down the garden was a very nice *Polystichum* with pinnae dotted with yellow, and then there were all the *Polystichum setiferum* 'Bevis' – to use Angela Tandy's phrase, 'What a 'Bevis' fest!'. Superb. This was a beautiful garden with ferns, rather than a fern collection, and was stunning.

photo: J.P. Reed

***Athyrium filix-femina* 'Fibrex' in Alistair & Margaret Urquhart's garden, Kidlington**

The afternoon was spent at Nick and Eleanor Hards' garden at Didcot. What grabbed everyone's attention was a *P. setiferum* 'Plumosum Kaye'. Nick explained its provenance, and it was apparent that this is so important for a cultivar, to know it is the real thing. *P. setiferum* 'Gracillimum' was talked about in similar terms – this could also be called *P. setiferum* 'Green Lace', which was originally micropropagated in Holland. Nick has a wide range of 'Gracillimum' and 'Bevis' that he originally got from a local garden centre as a pot of mixed plants. He split them up and planted them out, and some are amazing quality. Nick also showed us some *Dryopteris* that were from Ken Trewren, and a large plant of *Polystichum setiferum* 'Hirondelle'. It would be good to propagate this since it is not often seen. There was a *P. setiferum* 'Divisilobum' that Nick found on his first BPS field meeting, and other brilliant ferns including an *Asplenium scolopendrium* 'Crispum', *Polystichum setiferum* 'Ray Smith' and a stunning *P. setiferum* 'Plumoso-divisilobum'.

The afternoon finished with tea and cakes. Many thanks to Nick and Eleanor for these, and to them and Alistair and Margaret for showing us their ferns and giving us a memorable day. It is rare to see *P. setiferum* 'Gracillimum', let alone so many in two gardens, and even rarer to see *P. setiferum* 'Plumosum Kaye' and *Athyrium filix-femina* 'Fibrex'!

photo: N.J. Hards

Nick & Eleanor Hards' garden, Didcot

Back: Matt Busby, Jennifer Ide, Rosemary Alexander, Angela Tandy, Roger Norman, Christine Mullins, Brian Dockerill, Peter Tindley, Mark Border
Front: Sue Dockerill, Roger Golding, Gert Jan van der Kolk, Sue Norman

AUTUMN MEETING – GLASGOW BOTANIC GARDENS & THE GARDENS OF ALASTAIR WARDLAW & FRANK McGAVIGAN –

24-25 October **Pat Acock**

On being commissioned to organise a meeting in Glasgow, I turned to Alastair Wardlaw and Frank McGavigan. They came up with ideas and, more importantly, put me in touch with Christine Nicholson, Orchid Propagator at Glasgow Botanic Gardens. Christine, a member of the BPS for ten years, immediately sprang into action, looking into the logistics in terms of a room, equipment and refreshments, as well as scheduling tour guides once work rotas were known. All her time and planning meant that attendees enjoyed a smooth-running day. A varied range of four twenty-minute presentations were interspersed with short talks on 'My favourite fern'.

Peter Blake started the day with 'Setting up a tender fern house'. His account of many experiences of pitfalls and successes resulted in nods from the audience, most of whom no doubt had experienced some of the same problems. I visited Peter's house in Battersea, and from what I saw there and in the slides of his new home in Norwich, I should say that his determination to overcome all the snags certainly paid off. He grows some really stunning ferns outside the usual range of hardy ferns that most people manage.

Tim Pyner then gave an overview of *Woodwardia* identification. Tim had spent some time going through the herbarium collections at the Natural History Museum in London, as well as looking at woodwardias he had found in the trade, on his travels and in gardens, in his quest to sort out the naming of these plants. He is happy to receive plants to assist with continuing this work and to help people put the right name on them.

Janet McArthur gave a talk on Starbank Park. This rather run down and vandalised park overlooking the Firth of Forth in Leith, north of Edinburgh, had definitely been in need of some TLC. Janet and a few other people started the Friends of Starbank Park in 2013. Working with the council and gathering funding wherever they could by holding events and asking for donations of plants and materials, they set out to win a Green Flag Award. They were surprised how quickly local people responded, and little by little the flower beds and infrastructure took shape. Of special interest to BPS members was the fernery, created in a shady corner and now fully stocked. It would hopefully mature nicely in 2016. Within two short years they managed to win a Green Flag Award and were rated equal fifth, and also declared the second most improved park in Edinburgh.

The five-minute talks were as follows:

Osmunda claytoniana. Alastair Wardlaw spoke about why this was his firm favourite.

Dryopteris fragrans. Adrian Dyer described this fern and how on the few occasions he had met it he was drawn by its growth size, scales and persistent previous year's fronds.

Elaphoglossum crinitum. Chris Nicholson not only gave her reasons for liking this glorious tropical epiphyte but had one to show us that had been grown in Glasgow Botanic Gardens.

Dryopteris aemula. Paul Ripley gave an enlightening overview of the nature of the Weald and *D. aemula*'s place in it.

Adiantum raddianum. Razvan Chisu showed us some stunning pictures of *A. raddianum* cultivars that he had grown.

Lophosoria quadripinnata. Michael Hayward told us how he had first come across this near relative of the tree ferns. Having risked it outside in his garden, it had developed into a magnificent specimen.

Platycerium growing. Michael Radley gave a very full, interesting and tip-laden talk on how he grows these statuesque plants. He has certainly found their secret as his results are simply amazing.

Asplenium goudeyii. I described how I became fascinated with Lord Howe Island and came to know and love this endemic fern, which Chris Goudey first realised was different from its near relatives.

I also spoke on certain fern weeds that seem to be spreading around the globe in the tropics and subtropics, most notably *Christella dentata*, *Deparia petersenii*, *Cyathea cooperi* and *Angiopteris evecta.*

In the afternoon we split into two large groups under the leadership of Stevie Jakusz, propagator, and Joe McCulloch, the deputy manager, who swapped groups at half-time.

Stevie took us to his splendid Filmy Fern House, where we saw the 'tufa' walls covered in mosses and liverworts plus, more importantly, species of *Hymenophyllum*, *Trichomanes* and *Lastreopsis* along with large numbers of *Leptopteris hymenophylloides* and *L. suberba*. We were taken through a number of houses at various temperatures and humidities, all full of exotic flowering plants including choice begonias and *Oxalis*, before entering two smaller houses where the ferns were a pure delight. Among these were a couple of rows of the stunning *Elaphoglossum crinitum* that Chris Nicholson had spoken of earlier in the day, along with cyatheas, selaginellas, lygodiums and numerous other ferns.

photo: A.M. Paul

Kibble Palace, Glasgow Botanic Gardens

Switching leaders, Joe led us into the Kibble Palace, which comprises a grand rotunda with side houses. The whole Victorian glasshouse had been beautifully restored in recent years, and Joe regaled us with stories of its past and present. It opened in 1873, having been moved from Kibble's home on the shores of Loch Long, and the tree fern collection was planted in the 1880s. Joe gave us a tour of the main part of the building, which had concentric paths, beds full of exotic plants, beautiful statues and unusual information panels. Amongst the large number of plants was a wonderful collection of the *Cyathea* and *Dicksonia* species that many of us try to grow, such as *Cyathea medullaris*, *C. dealbata*, *Dicksonia lanata* and *D. fibrosa*, along with two lovely osmundas – *O. vachellii* and *O. javanica.* A wedding party was present and Joe explained that although they were allowed to use the building for that purpose they could not stop the public from passing by since that was the purpose of the buildings. Such a refreshing and enlightened approach.

photo: A.M. Paul

Tree fern grove in Kibble Palace, Glasgow Botanic Gardens

Returning for afternoon tea and networking, we once again thanked Chris for all her and the team's hard work before departing for home or the customary evening meal.

Those who stayed for the Sunday gardens option met punctually at Alastair and Jackie's home in Bearsden for coffee. Their splendid garden used to have a complete collection of British ferns and there were only a few missing now. It is amazing how Alastair had provided suitable niches to enable even filmy ferns and *Asplenium marinum* to survive. As if this were not enough, there were many ferns from around the globe that were hardy and a few that were just a shade softer and were about to be taken into the greenhouse to overwinter. Alastair has always had a great collection of tree ferns and although a recent winter had culled some of the collection, some replacements as well as many other ferns had been added to the beds from spore sowings and speciality fern nurseries. A couple of hours amongst this fine collection was rounded off by a splendid lunch provided by Jackie.

photo: A.M. Paul

***Trichomanes speciosum* niche in Alastair & Jackie Wardlaw's Garden**

We travelled, surprisingly on time, to the garden of Frank and Linda McGavigan in Lenzie. In the living room Frank told us a little about his collection and how it had evolved. Moving into the back garden we were delighted by a number of ferns growing in the beds in front of the windows, including *Blechnum spicant*, a *Polystichum setiferum* cultivar and *Dryopteris affinis* 'Congesta Cristata'. In beds on either side of the lawn there were other ferns such as *Adiantum aleuticum* and *Polypodium cambricum*. Where the garden dropped a few feet, a retaining wall held such gems as *Asplenium trichomanes*, *A. ceterach* and *Polystichum lonchitis*. Below this was an area with a few trees giving light shade, under which were ferns such as *Dryopteris goldiana*, *Athyrium filix-femina* 'Victoriae' and *Cyrtomium fortunei*. Many of the *Dryopteris* grew to stunning heights in the dappled shade and the light damp soil. I am probably not supposed to mention this, but Frank also had four different equisetums growing here, including an exotic species. *E. sylvaticum* was roaming around the larger plants, making a charming backdrop. We retired to the house for a very fine afternoon tea enhanced by one of Frank's home-made fruit-cakes.

photo: A.M. Paul

Frank & Linda McGavigan's garden, Glasgow

Sue Norman, Sue & Brian Dockerill, Tim Pyner, Roger Norman, Frank McGavigan, Alison Evans, Bridget Laue, Paul Sharp

This very fine weekend was a result of the efforts of Chris Nicholson, Alastair Wardlaw, Frank McGavigan and their helpers – many thanks. I would also like to thank Ewen Donaldson, the General Manager of Glasgow Botanic Gardens, for generously allowing us to use their facilities and have the help of the staff, so willingly provided, which made Saturday so special.

REGIONAL MEETINGS

CORNWALL & DEVON

Ian Bennallick

Update: In my last *Bulletin* account I reported a find on 15th May 2014 of a narrow-fronded *Asplenium* on the wall of a fish cellar in Port Gaverne, north of Wadebridge, East Cornwall (square 20/08). It was assumed to be *A. marinum*, though I wondered if it might be a hybrid (although this was unlikely). I collected a frond with ripe spores in September 2015 and Fred Rumsey confirmed that it is definitely *A. marinum*. Martin Rickard reported that "none of the old Victorian cultivars seem to fit your plant so I would suggest this could be called *A. marinum* 'Lineare' ".

Woods at Herodsfoot (20/26), South-East Cornwall – Sunday 10th May

A woodland walk, mostly for spring flowers and updating under-recorded one-kilometre-squares, took us down in the valley of the West Looe River south-west of Liskeard. Walking through Deerpark Wood, and Trenchway and Canakey Woods (20/2060) ferns were abundant and luxuriant with large plants of *Blechnum spicant*, *Dryopteris dilatata*, *D. affinis* subsp. *affinis*, *D. borreri* and *Athyrium filix-femina*. Matt Stribley found some *D. cambrensis* subsp. *cambrensis*, and we re-recorded some *Oreopteris limbosperma* by a forest ride.

Hawk's Tor (20/17), Bodmin Moor, North Cornwall – Wednesday 22nd July

A walk in the heart of Bodmin Moor to update records for squares 20/1475 and 20/1476 included a walk north of the A30 up to Hawk's Tor. David Pearman found a nice *Huperzia selago* plant on the granite tor at 20/1408.7555, growing with *Polypodium vulgare*. This is the first record of the species in 20/17 since before 1930 – an unlocalised record appears in Perring and Walters 1962 (*Atlas of the British Flora*), so it was good to update this hectad.

Davidstow Woods (20/18), east of Camelford, North Cornwall – Sunday 9th August

A walk around the Davidstow Woods conifer plantation on part of the former RAF Davidstow Moor airfield, built in 1942 on high ground (290 metres) on the northern edge of Bodmin Moor, held the surprise find of several plants of *Asplenium ceterach* at 20/1527.8455. This fern is rare in most of Cornwall but may be found almost anywhere with some base-rich substrate, such as lime mortar or where concrete may be degrading in walls or on hedgebanks. The site at Davidstow was where part of the old concrete building on the runway had been broken up. Growing in a sheltered crevice with *A. ceterach* were some very large-fronded *A. adiantum-nigrum*. The nearest known sites for *A. ceterach* are several kilometres away.

South of Minions & Caradon Hill (20/27), Bodmin Moor, South-East Cornwall – Sunday 4th October

Despite cloudy and cool windy weather, seven members met north of Liskeard at Minions on the south-eastern edge of Bodmin Moor with the aim of updating the one-kilometre-squares 20/2570 and 20/2571, the western side of Caradon Hill. The area explored included the old South Caradon copper mine, the UK's largest copper mine in the nineteenth century and now part of the Cornish Mining World Heritage Site. Despite the spoil heaps and sparse vegetation, we found at least fifty plants of *Asplenium obovatum* subsp. *billotii* on an old wall south of Gonamena at 20/2639.7030 – a new site, and some *Oreopteris limbosperma* plants by a stream. In an old granite quarry near the summit of Caradon Hill (at 350 metres) Tony Atkinson (an 80-year-old mountain goat!) nonchalantly clambered up the quarry face

photo: I.J. Bennallick

***Huperzia selago* on old granite quarry face, Caradon Hill**

to check a strange looking plant at 20/2690.7048 – this proved to be *Huperzia selago*, a new record well away from the nearest site several kilometres to the north. This species has historically been recorded at 19 sites in Cornwall, but this new one brings the total known sites recorded since 1999 to eight. It is often found only as single plants and then often as temporary occurrences, with later visits unsuccessful in re-recording it. In some areas where several plants are found scattered in a small area (as on Rough Tor 20/143809 – see next report) it has been noted that grazing animals (sheep or ponies?) appear to pull it out, so perhaps in more heavily grazed sites it never gets a chance to spread.

After the main walk, Ian Bennallick and David and Anita Pearman checked on the *Phegopteris connectilis* just to the west at Craddock Moor (20/2459.7138). First found here in 2011, it is one of only two known sites in Cornwall. It was still looking very healthy, with two large patches by a stream.

Rough Tor (20/1480), south-east of Camelford, Bodmin Moor, North Cornwall – Sunday 11th October

This walk was organised to search for *Phegopteris connectilis* and other ferns on the National Trust-managed Rough Tor (400 metres), which is now less grazed. Despite close searching in between the many granite rocks and the clitter, no *Phegopteris* was found, though we did add some more colonies of both *Hymenophyllum wilsonii* and *H. tunbrigense*, and Matt Stribley managed to find some gametophyte of *Trichomanes speciosum*. We also found some *Huperzia selago* that had not been pulled out by grazing animals as had been observed on previous visits. Although the vegetation was still closely grazed in places, the reduction, or mix of type of grazing animals may have helped *Huperzia* plants to remain intact.

photo: I.J. Bennallick

Judy Swift and Perry Smale looking for *Phegopteris connectilis* in amongst granite clitter on west side of Rough Tor (20/1480)

EAST ANGLIA

Winter Indoor Meeting, Oulton Broad, Suffolk – 24 January

Tim Pyner

This year our winter indoor meeting was held at Gill and Bryan Smith's house in Oulton Broad. Seventeen members were treated to a delicious cooked lunch before sitting down to the afternoon's presentation by BPS President, John Edgington. John talked on three different subjects, firstly recent finds in London. A single plant of *Pellaea falcata* established in brickwork was a highlight although disappointingly a colony of *Asplenium obovatum* subsp. *billotii* on a wall appeared to have been sprayed with herbicide. The next item was a report on the very successful BPS trip to the Italian Alps in May 2014 and we were shown some beautiful ferns with fantastic mountain scenery. John's third section described a trip to the Czech Republic by him and his wife. Although only a brief visit, John found some interesting ferns including a possible *Dryopteris oreades* not previously recorded for the country. Definitely an option for a future BPS trip I would say! I would like to thank John for his presentations and also Gill and Bryan for their excellent hospitality.

Assington Thicks Wood, Assington, Dollops Wood, Polstead, Nayland, & Barrie Stevenson's garden, Cowlinge, Suffolk – 30 May

Assington & Polstead

Tim Pyner

Eighteen members and guests including our leaders, local botanists Robin Ford and Nick Miller, met at the entrance to Assington Thicks (52/930379). This is private woodland converted to coniferous plantation but now being replanted with broad-leaved trees as the conifers are felled and removed. Ferns grew in profusion along the grassy rides that criss-cross the wood. Bracken (*Pteridium aquilinum*) and broad buckler fern (*Dryopteris dilatata*) were abundant, male fern (*D. filix-mas*) and lady fern (*Athyrium filix-femina*) only slightly less so. In a few places that had been recently cleared narrow buckler fern (*Dryopteris carthusiana*) was thriving. As usual, members of the *D. affinis* complex proved puzzling but it was agreed that both *D. borreri* (frequent) and *D. affinis* (occasional) were present. A group of small ponds (52/927381) was of interest due to the abundance of water violet (*Hottonia palustris*) in full flower. A large plant of soft shield fern (*Polystichum setiferum*) was seen here.

Following lunch at a nearby farm shop we moved on to Dollops Wood (52/991386) in the village of Polstead. This is a valley wood consisting of oak, with alder at the valley bottom. Bracken was abundant in the drier areas, with *Dryopteris filix-mas* and *D. dilatata* near the stream. In the marshy areas by the stream *Athyrium filix-femina* was seen along with a few *Dryopteris affinis* on a steep-sided section of stream bank. A small colony of *Polypodium interjectum* was found on the trunk of a fallen tree in the marsh and at the northern end plentiful *Equisetum arvense* was seen.

Nayland & Cowlinge

Bryan Smith

Our third stop of the day was in Nayland, a pretty Suffolk village with lots of colour-washed and black-timbered seventeenth-century buildings. On the outskirts of the village, a more recent building (circa 1870), the United Reformed Church (52/975344), revealed a front basement covered in *Adiantum capillus-veneris*. It was hard to guess the age of this colony, but it covered the twenty-foot-long, six-foot-deep wall, challenged at the top only by a few plants of *Polypodium interjectum* and a single plant of *Dryopteris filix-mas*. A good clump of the *Polypodium* could also be seen on the church roof. On the way back through the village, some of us managed to go into St James's Church to see the altarpiece by John Constable.

photo: B.D. Smith

United Reformed Church in Nayland, Suffolk
Peter Blake, Roger Golding, Tim Pyner, Gill Smith, Dick Lincoln,
Barrie Stevenson, Ashley Basil, Duncan Gray, Neil Dickinson,
Sarah Swift, Sue & Mike Lawrence, Robin Ford, Jo Basil, Nick Miller

Our final stop of the day was Barrie's home and garden in Cowlinge. Although I have been here on a number of occasions, I had not been for several years. His mature garden continues to enthral and delight. Apart from masses of geraniums, aquilegias and New Zealand plants, the garden contains many fern cultivars, particularly of *Polystichum setiferum* and *Polypodium*. It would take more than my allotted space to list all of the ferns, but the ones that especially caught my eye were a feathery *Polystichum setiferum* 'Mrs Goffey', *P. setiferum* 'Tripinnatum', and a very large *Adiantum pedatum/aleuticum*. In one corner, there was a small *Trichomanes speciosum*, temporarily exposed from its glass-dome covering. This fern, given to Barrie by another East Anglia Group member some years ago, originated from Eire in the 1930s. Venturing into his thatched cottage, we were treated to seeing a number of Victorian ferny artefacts and fern books, which gave evidence of Barrie's expertise in this area. Add to that a welcoming cup of tea and a variety of home-baked cakes; the visit rounded off an excellent day with the East Anglia Group.

Scrubs Wood, Danbury & Woodham Walter Common, & Tim Pyner's Garden, Southend, Essex – 25 July

Michael Radley

Scrubs Wood & Woodham Walter Common

Scrubs Wood (52/7805) is part of the Danbury Ridge nature reserve complex. Looked after by Essex Wildlife Trust, the reserve covers nearly 250 acres and includes many SSSIs. Twelve East Anglia and South-East Group members were joined by six members of Essex Field Club, one of whom was a past warden and kept us on the right track. Before we entered the reserve our leader, Tim Pyner, gave us an introduction on the importance of this

site. Past records included marsh fern (*Thelypteris palustris*), a rarity in Essex that we hoped to re-find, and there were some large specimens of *Dryopteris* waiting to be identified. Some of the woods were once fields, now overgrown but their boundaries still defined by ditches. There was evidence of coppicing, and pollarded oaks were still visible.

The entrance to the woods was marked with a small boggy pond without ferny interest. The first fern spotted was male fern (*Dryopteris filix-mas*), followed by broad buckler fern (*D. dilatata*) and then bracken (*Pteridium aquilinum*), which remained ever-present but never dominant. After leaving the track and approaching a small stream lady fern (*Athyrium filix-femina*) started to appear and there was an impressive stand at the edge of the boggy ground where the board walk crossed the stream. Walking on alongside the stream, narrow buckler fern (*Dryopteris carthusiana*), with its more upright habit and scales without the dark stripe, was found by Roger Golding. Ashley Basil spotted some *Equisetum telmateia*, of which there was also a large swathe of lush plants fifty metres further on in a glade.

The sloping ground alternated between stony acid gravel outcrops and boggy tracts created by the underlying clay. On one of these tracts was an impressive stand of ferns with a few large specimens clearly standing out. *Dryopteris affinis* subsp. *affinis* was identified, along with a possible hybrid between this and *D. filix-mas*; it had hybrid vigour, was not so leathery and had a certain softness, unlike *D. affinis*. Roger found a high number of abortive spores and is convinced it is indeed the hybrid *D.* × *complexa*. As we made our way up the slope to better drained ground a soft shield fern (*Polystichum setiferum*) was found just before we stopped for lunch. Afterwards more *Dryopteris carthusiana* was found growing beside the stream in light shade.

photo: B.D. Smith

Scrubs Wood, Suffolk

Ken Adams, Pat Acock, Dick Lincoln & Tim Pyner examine a possible *Dryopteris* × *complexa*

Passing through Woodham Walter Common (52/7906) we arrived at the marsh fern site, but unfortunately a small drainage ditch had been dug through the exact spot where it was last located. However, we did find a large plant of *D.* × *deweveri* (later confirmed under the microscope by Tim). An impressive feature of the woods was the number and size of wood ant nests.

Moving on through Pheasanthouse Wood (52/7806) there were several places with *Polystichum setiferum* growing well, and on the bank of an old boundary ditch was a rather fine but solitary hart's tongue fern (*Asplenium scolopendrium*). Another contender for *D.* × *complexa* was not confirmed. Not far from another group of *Polystichum setiferum* was a single hard shield fern (*P. aculeatum*). As we made our way back out of the woods we passed through Pheasanthouse Bog, an open clearing with sphagnum moss and a stand of tall *Athyrium filix-femina*. Nearer the edge grew a magnificent group of hard fern (*Blechnum spicant*) with a high percentage of fertile fronds.

On leaving the woods Tim pointed out a service tree, once a more common feature often used as a boundary marker. This was an excellent site and, even if not typical of the county, the abundance of ferns should dispel the view that Essex is not a significant place for ferns.

Tim Pyner's Garden **Martin Rickard**

Tim will be embarrassed when I say that his garden is one of the best in the country for ferns. Not only is it well designed but his enthusiastic interest in rarer plants boosts the beds in both the front and back garden. The small trees in the back garden give shade for the multitude of ferns vying for space. The small formal lawn takes one's eye from the many sink gardens full of small ferns that define the limit of the terrace to the back bed. This main bed has many varied ferns of interest and all have to be hardy to survive. Tim did confess to me that this year during the drought from March to July he had to water occasionally, whereas normally the ferns have to look after themselves. Nowhere in Britain can a finer collection of ferns in a bed of this size be found, with delights such as *Leptolepia novae-zelandiae*, *Pteris wallichiana*, *Polystichum* × *maderense*, *P. vestitum*, *Blechnum fluviatile*, and various species of *Diplazium*, *Coniogramme* and *Arachniodes*. In the sink gardens along the front of the house and on the back patio can be found gems such as *Pellaea andromedifolia*, *Asplenium appendiculatum*, *A. obtusatum*, *Astrolepis sinuata* and *Anemia tomentosa*.

photo: P.J. Acock

Tim Pyner cutting the East Anglia Group's 25th anniversary cake

And to round off the proceedings, Beverley Harvey, Tim's partner, had baked a cake to celebrate the 25th anniversary of the East Anglia Regional Group.

Autumn Indoor Meeting, Oulton Broad, Suffolk – 31 October **Tim Pyner**

Eighteen members and friends gathered at Gill and Bryan Smith's house on a mild, dry day. The garden was looking good and wet weather over the previous few weeks had ensured the ferns were in peak condition. Bryan's collection of ferns is considerable and contains many unusual species and cultivars. Despite the late season, several tender species were still displayed in hanging baskets outside, providing further evidence for shifting seasonal patterns. Following a delicious lunch served by Gill, Barrie Stevenson gave a short talk on some ferny artefacts that he had brought along. Members then showed photos of meetings and fern trips undertaken during 2015. The fern sale again proved popular, with most pots being quickly snapped up. Bryan and Gill are warmly thanked for their hospitality in hosting another successful and enjoyable Autumn Meeting.

MANCHESTER AND NORTH MIDLANDS

Tissington Trail & Bradford Dale, Derbyshire – 1 August

John Grue

(Leader: Alison Evans)

Dryopteris submontana is, in general, a plant of the mountains of the Mediterranean, found in Spain, Italy, Southern France, Algeria and beyond from Anatolia to the Caucasus. It has had a very scattered distribution in Britain. Now known at only two sites in Wales and believed extinct in Arran, its stronghold is the limestone areas of south Cumbria and the western Dales, where it is not uncommon growing in fissures and grykes in the limestone pavement and on scree and escarpments. Its presence in Derbyshire is very interesting. Its first discovery was in 1974, and it is now known from four locations, all of which are railway cuttings in limestone. The ferns in the Tissington Trail had been visited previously by the BPS in 1997, when the group led by Trevor Taylor counted 11 clumps. A survey by a group led by Yvonne Golding in 2009 mapped the plants in detail and counted 15 plants or clumps. Our plan was to check on the viability of the colony and to record any changes or hazards.

Alison and Chris Evans, Henry Folkard, John Grue and Paul Ruston met at the car park at 43/156536. We crossed to the Tissington Trail, a very lovely and popular cycle and walking route, once a railway but it's hard now to imagine the express trains from Manchester to Marylebone.

At first we met only with *D. filix-mas*, but our way was enlivened with wildflowers. We found a *Polypodium* on a wall. We thought *vulgare*, but the nettles were too high and the plant too small for identification. On entering the cutting where the *D. submontana* grows (43/160574), we found the range of ferns increased dramatically. There were three *Polystichum aculeatum* on the east side, a lot more *D. filix-mas*, *Asplenium trichomanes* subsp. *quadrivalens* (wide fronds) and *A. scolopendrium*. We considered a possible *Dryopteris* × *complexa*, but left it as *D. filix-mas*. A large and quite golden *Dryopteris* was assigned to *D. borreri* after close study (43/1608.5777). *Asplenium ruta-muraria* and many *A. adiantum-nigrum* were the next points of interest, mainly growing on the east face.

As we passed under the bridge, we started our search for *Dryopteris submontana*. We were able to use the photographs and grid-references provided by Alison to identify the plants and soon found all the previously recorded plants and clumps. The tapered frond and bright colour were an excellent guide. We were pleased to note that one crevice now held four healthy plants where previously there had been three, bringing the total number

photo: C. Evans

Bradford Dale, Derbyshire

John Grue, Alison Evans, Henry Folkard, Paul Ruston

to 16 plants. A discussion about the possible provenance of the colony entertained us while we searched. Some plants were now overgrown and Henry offered to report this and discuss management with the park authorities.

After a pleasant lunch in the Waterloo Inn at Biggin, we proceeded to Middleton-by-Youlgreave, parking at 43/1950.6317. A circular wall in the middle of the village yielded polypodiums; Alison took samples to confirm *P. interjectum*. In the woods of Bradford Dale we found *Cystopteris fragilis*, large *Dryopteris dilatata*, *Athyrium filix-femina*, huge *Asplenium scolopendrium*, and at 43/1988.6330, three very large, very foliose plants of *Polystichum setiferum* – we thought because of the very dim light.

We made our way back to the village for a splendid tea at a new tea shop, when we toasted 'Absent Friends' and bemoaned once again the peculiar absence of *Asplenium ceterach*.

Near Stanage Edge, Hathersage, Derbyshire – 20 September **Alison Evans**
(Leader: Henry Folkard)

Five of us met in the Hollin Bank car park at 43/2370.8378 on a slightly overcast but dry morning, First we looked at a strange plant of *Dryopteris dilatata* that Henry had found previously in a wooded enclosure next to the car park, the location 'marked' by nest box 521 on the tree above. This plant seemed to have two different types of fronds – some dark blue-green and very convex, and others flat and a bright apple green, all coming from the same crown. There were a few other plants nearby that showed this to a lesser degree, so we wondered if it was caused by the cold summer and late growth of some of the fronds. Henry will check the plant again next year.

We then set off downhill on a path through the bracken that Henry had cleared for us – no mean task! A short detour to a streamside at 43/2343.8399 brought us to beautiful stands of *Oreopteris limbosperma*, *Blechnum spicant* and *Athyrium filix-femina*. Back on the main path, a rather precipitous descent took us to lovely oak woodland, with the last three species present in great quantity along the streamside. *Dryopteris dilatata* was predominant in places on the woodland floor, with a few fronds of *D. carthusiana* at 43/2336.8395. We also wondered about *D.* × *deweveri* but did not find any 'fertile' fronds to check the spores. A stately stand of *Equisetum sylvaticum* at 43/2337.8393 prompted some of us to ford the stream to take photos. Our first sightings of male ferns came when we reached the walls of the ruined old paper mill, with *Dryopteris borreri* and *D. filix-mas* at 43/2325.8376. We also noted polypodies growing high in the oak trees around 43/2319.8360, but could not find any fallen fronds to establish if they were *Polypodium vulgare*, as we suspected.

Our next find of interest was a very large plant of *Dryopteris borreri* by the streamside at 43/2315.8339. This had some features of the form described as 'insolens'. On Birley Lane, male ferns were much more abundant, with a handsome plant of *D. borreri* "forma *foliosum*" at 43/2315.8309. We also added *Asplenium scolopendrium* to our list, growing in the roadside wall at 43/2318.8313. Henry had negotiated permission for us to go through the North Lees campsite to make a circular walk, and the woodland by the stream here also had a variety of forms of *D. borreri*, including "forma *foliosum*" at 43/2354.8323, next to a large plant that we thought might be *D.* × *critica*, but examination of the spores showed them to be good. We made use of the benches in the campsite whilst we ate our lunch. On walking up out of the campsite, we found *Polypodium vulgare* at ground level at 43/2372.8349, with mature sori so we were able to confirm its identity. On our way back to the car park, the interpretation board about Stanage Edge and North Lees Estate stimulated a discussion about the management and conservation of the area. Thank you to the Peak District National Park Authority for waiving our parking fees and allowing access to private areas, and to Henry for arranging a walk with so much general as well as ferny interest.

NORTH-WEST

Hampsfell, Grange-over-Sands, South Cumbria – 13 June — Peter Campion

Eleven met up in the car park on Windermere Road in Grange-over-Sands (34/411783). Sadly, Alec Greening was not fit enough to lead the day but Mike Canaway and Wendy Nelson were able to lead us to known sites and to potential hot spots. Their preparation for our visit just shows that even if pteridologists have crawled over a bit of countryside for years, new records for the area still come up.

Before leaving the car park we viewed a fine stand of *Equisetum telmateia* with *E. arvense* in amongst it. We walked up the road a few yards past garden walls showing *Asplenium trichomanes* subsp. *quadrivalens*, *A. ruta-muraria* and *A. scolopendrium*, and probably *Polypodium interjectum* at the entrance to Eggerslack Wood. On the woodland path we quickly spotted *Dryopteris filix-mas*, *D. dilatata* and a lot of *Asplenium scolopendrium* in amongst the trees. This glaciated limestone environment with acid pockets proved a rich source of ferns. A fine specimen of *Dryopteris affinis*, probably subsp. *affinis*, was diagnosed, and on the fence shared with Eggerslack House was a clearly self-sown *Polystichum setiferum* 'Divisilobum'. As we climbed slowly we saw a possible hybrid of *P. setiferum* too young to identify; someone needs to come back when the fronds are mature to check the spores. A number of *Athyrium filix-femina* and *Polystichum aculeatum* were seen, and a lot of *Pteridium aquilinum*, which extends out on to the open Hampsfell. The woodland fern list continued with *Dryopteris borreri* "forma *foliosum*", *D. cambrensis*, *D. affinis* subsp. *paleaceolobata* (after much debate) and *Blechnum spicant*. As we neared the edge of the woodland we came across several lovely stands of *Phegopteris connectilis* and a number of little *Oreopteris limbosperma* plants (34/406789). A probable *Dryopteris borreri* "insolens" was noted and a stand of *D. carthusiana* identified after burrowing in the leaf-mould to determine that it was not a shuttlecock and had pale scales.

Out on the open grazing and limestone pavement we saw *D. submontana* growing in the grykes along with *Asplenium ruta-muraria*, *A. trichomanes* subsp. *quadrivalens*, *A. ceterach* and *Gymnocarpium robertianum* (34/4053.7943). After lunch we embarked on a moonwort hunt under Wendy's guidance but sadly a blank was drawn. However, a visit to the dew ponds rewarded our efforts with a good colony of *Ophioglossum vulgatum* but without fertile spikes (34/4048.7965).

We then walked up to the summit, passing more grykes and seeing *Cystopteris fragilis* along with other species already observed. At the 'Hospice', a shelter for travellers built on the top in 1845 by the vicar of Cartmel, we chilled out with a group photo and refreshment before making our way down back to the cars. Fortunately we experienced none of the forecast rain and had a very productive day.

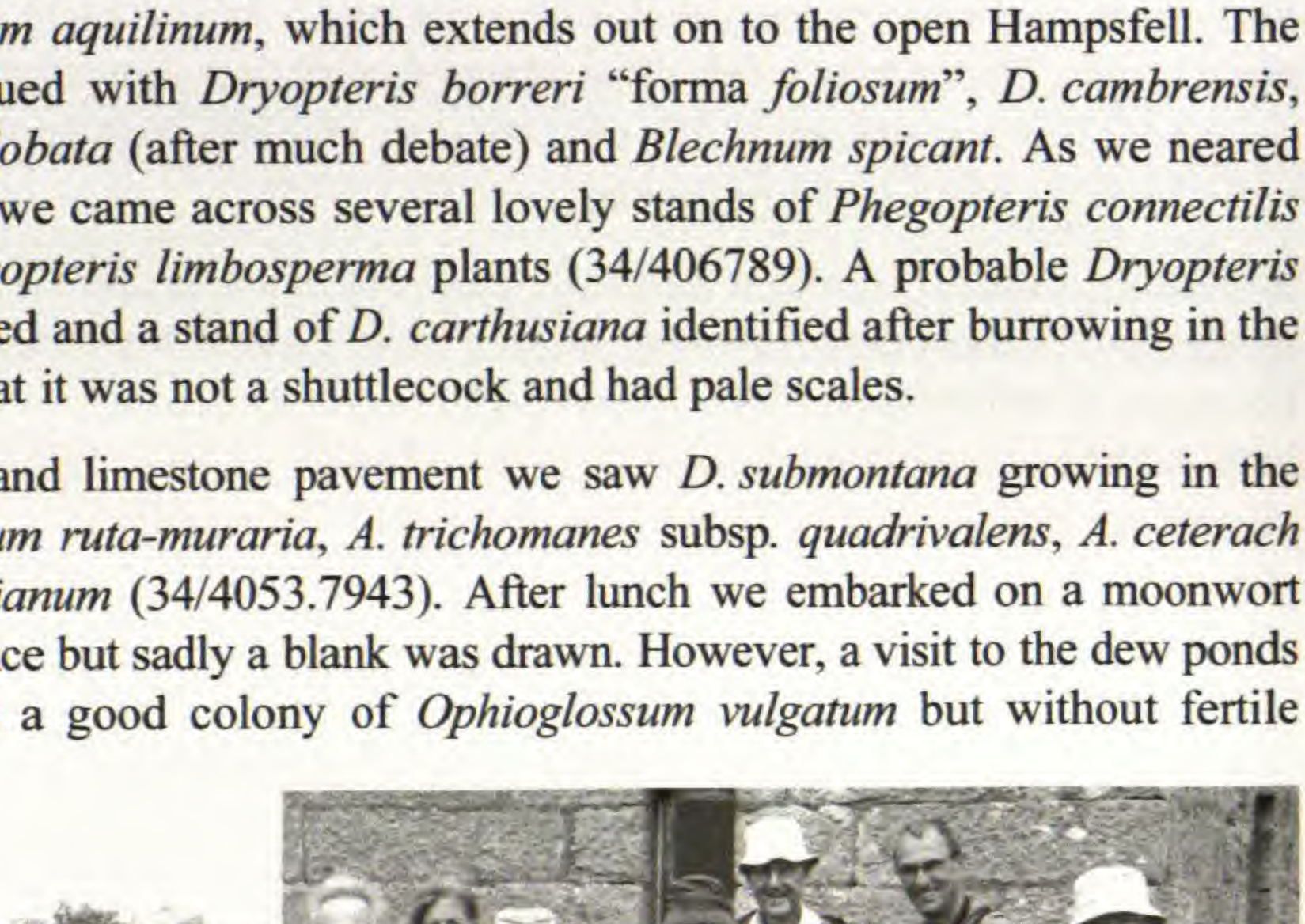


photo: P.J. Campion

The Hospice, Hampsfell, Cumbria

Denise Copson, Bruce Brown, Mike Canaway, Wendy Nelson, Julie Clarke, Robert Crawford, Alison Evans, Charlie Haigh, Tony Moverley, John Daffern

Leck Beck Head, Ease Gill & Brownthwaite Hardy Plants, Casterton, Cumbria – 4 July

Alison Evans

We met at Bull Pot Farm, 34/6627.8148, home to the Red Rose Cave and Pothole Club. Bull Pot is the highest point of the Three Counties Cave System, the largest in the country. We noted *Athyrium filix-femina*, *Dryopteris dilatata*, *D. borreri* and *Equisetum arvense* before leaving the car park area – and also stopped to admire a splendid stand of northern marsh-orchid, *Dactylorhiza purpurella*. *Polypodium vulgare* was growing by the farm gate at 34/6630.8144. We walked up to Leck Beck Head, passing several steep-sided pot holes and shake holes, some of them fenced off, with an array of ferns growing on the sides. We added *Dryopteris filix-mas*, *Polystichum aculeatum* and *Asplenium scolopendrium* to our list, and a large clump of *Dryopteris cambrensis* growing by Bull Pot itself at 34/6623.8129. Using binoculars to sort out the mass of ferns in a pot hole to our left at 34/6622.8125 we noted *Oreopteris limbosperma*, *Blechnum spicant* and *Cystopteris fragilis* amongst ferns already recorded, and a little further on *Asplenium trichomanes* at 34/6619.8123. We were pleased to find a few plants of *Dryopteris carthusiana* at 34/6616.8096.

photo: P.J. Campion

Path to Leckbeck Head, Cumbria

John Daffern, Sally Beamish, Chris Evans, Alec Greening, Ruth & Dave Charles, Robert Crawford, Steve Coleman, Denise Copson, Bruce Brown, Alison Evans, Chris Benson

On reaching Ease Gill, we walked a little further south to explore Ease Gill Kirk, where we found an array of limestone ferns and added *Asplenium ruta-muraria*, *A. viride*, and what was subsequently confirmed to be *Polypodium cambricum* to our list. Retracing our steps, we noted a probable *Dryopteris affinis* subsp. *paleaceolobata* growing below a bracken-covered slope at 34/6616.8005, and further north along the sides of Ease Gill there were magnificent stands of *D. affinis* subsp. *affinis*. The rocks by the side of the gill made good seats for our lunch-break, with plenty of green spleenwort to admire. Our walk along the gill was rewarded by several more polypodiums, including *P. interjectum* and *P.* × *mantoniae*, and two more limestone ferns – *Gymnocarpium robertianum* at 34/6662.8032 and *Dryopteris submontana* at 34/6689.8036. We also noted *D. borreri* at 34/6665.8033 and *Selaginella selaginoides* at 34/6752.8052 near to the bridge over the stream. Then a short walk uphill over Casterton Fell took us to a track back to Bull Pot Farm.

On the way to Brownthwaite Hardy Plants Nursery, most of us stopped our cars briefly to see *Cryptogramma crispa* growing in a small cutting in the rock to the west of the road at 34/6538.8015. We gathered at Chris Benson's house, where we were pleased to meet up with Frances and Charles Haigh and Melville Thomson. We were treated to tea and cake, followed by a garden tour. Most of us then spent some time in the nursery, admiring Chris's ferns and purchasing quite a few of them! Thank you very much to Chris and to Mrs Benson for their most welcome and much appreciated hospitality.

Eskdake: Milkingstead Wood – 29 August

Peter Campion

The forecast was for possible heavy showers when a select band of six gathered in the lay-by at Forge Bridge next to Milkingstead Wood. Following Mike Porter's excellent report from the last visit in 2013 we were interested to check out the *Dryopteris aemula* records and see if the elusive hybrid of *Hymenophyllum wilsonii* and *H. tunbrigense* might be lurking on the rose-coloured granite blocks and cliffs that characterise the wood.

Mike had kindly left a stake in the ground near the *D. aemula* and by entering the wood near the second gate we were able to find the location with that and GPS reading 34/153995 without too challenging a climb. Up near the boundary wall of the wood we found the single plant and then on searching around Alison Evans recorded up to sixteen plants of which seven now have a GPS grid reference, so the party came away confident that we could spot them again in future. Sorting out the *D. dilatata* from the *D. aemula* was not easy and getting one's eye in was essential. The nature of the terrain, however, meant that we damaged the moss covering to the rocks; this needs to be watched for in future visits. While up in among the rocks we experienced the forecast heavy shower and the expression 'temperate rain forest' came to mind. Aren't we lucky to enjoy it!

photo: A.J. Evans

***Dryopteris aemula* in Milkingstead Wood**

We then turned our attention to *Hymenophyllum*. Many of the granite lumps with the continuous trickle of water down them have colonies of *H. tunbrigense* and/or *H. wilsonii* and the weather had been good this year for them both. Search as we may the hybrid was not seen; the one possible candidate was dismissed very quickly. Another time perhaps. We were able to find *Dryopteris borreri* and *D. affinis*, together with *D. filix-mas* and *D. dilatata* as we passed through the site. *Athyrium filix-femina*, *Blechnum spicant* and *Phegopteris connectilis* were recorded too. Subsequently confirmed were *Polypodium vulgare* and *P. interjectum*. Back near and on Forge Bridge with its lime mortar we found *Asplenium trichomanes* subsp. *quadrivalens* and *A. ruta-muraria*. No surprises perhaps but we were satisfied with the morning's exploration as we sat by the River Esk eating our lunch in the now warm sunshine.

After lunch we travelled to Flass Tarn (35/129034) in the next valley to check out the *Pilularia globulifera*. Quite considerable quantities were found and samples were examined and photographed. Some of the party had not seen it before so it was most helpful.

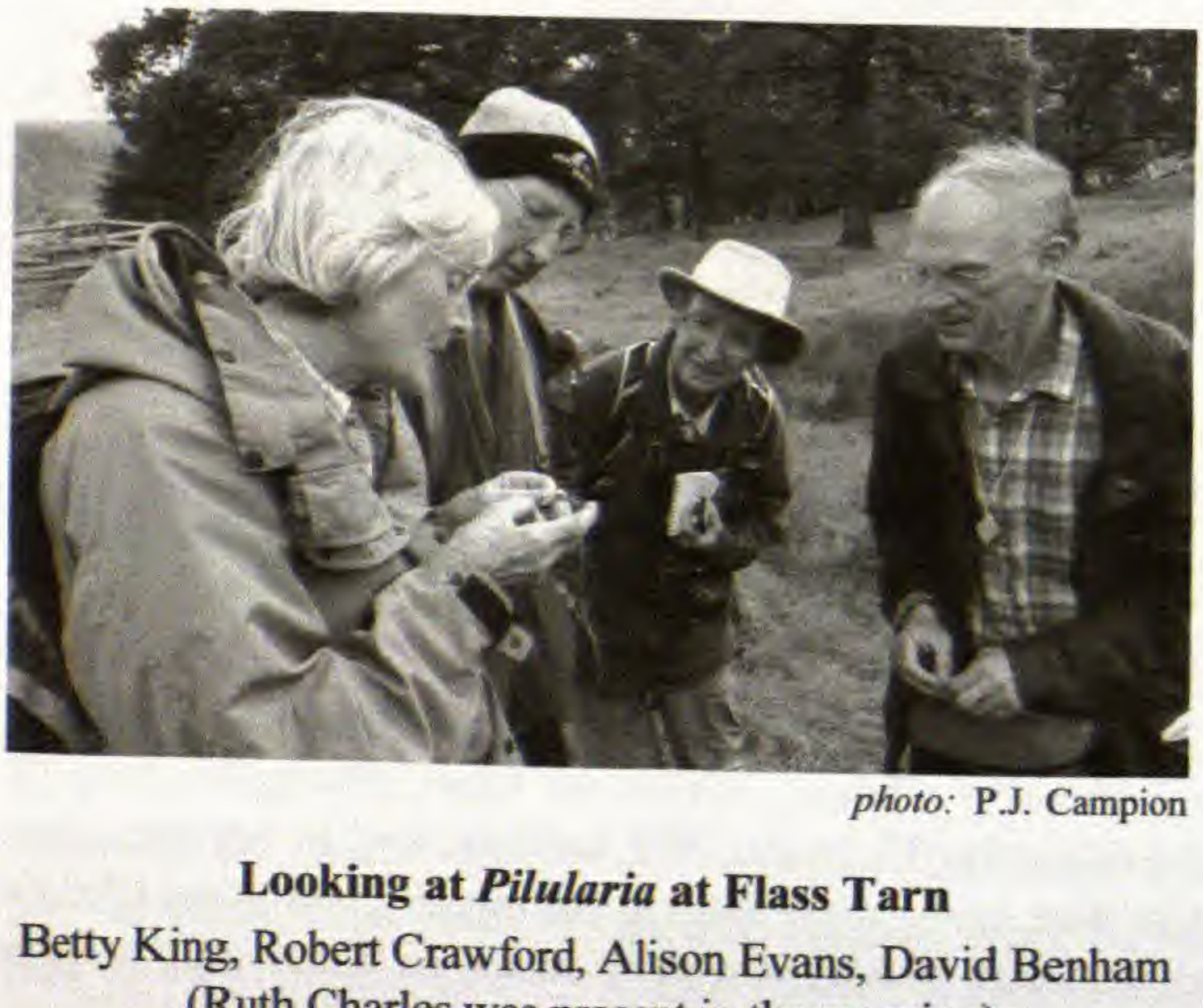


photo: P.J. Campion

Looking at *Pilularia* at Flass Tarn

Betty King, Robert Crawford, Alison Evans, David Benham
(Ruth Charles was present in the morning)

A small contingent of the group then moved on to the road to Gosforth from Wastwater at 35/1479.0559, where Betty and David pointed out *Lycopodiella inundata*; eight colonies were counted, some of them extending for a couple of metres.

So not an impressive list but a great day out.

Annual General Meeting, Holehird, South Cumbria – 17 October — Peter Campion

Twenty-four of us attended the group's 21st AGM on a beautiful autumn day. The gardens at Holehird were looking lovely and we were made very welcome by the Horticultural Society volunteers, especially Steve Mees, keeper of the *Polystichum* collection. We broke records for fern sales, raising £124 for funds. Thank you, everyone, for your generosity.

photo: P.J. Campion

Fern sales, NW Group AGM, Holehird, Cumbria
Steve Coleman, Tony Moverley, Andrew Harrison,
Robert Scott, Chris Band, Alec Greening, Chris Benson

After excellent refreshments, Michael Hayward presented a slide-show: 'Joseph Flintoft of Keswick and his collections of Lake District ferns'. Michael showed us all the albums from his own collection, and his detailed research into Flintoft and his albums of mounted ferns was fascinating. A period of questions followed.

During lunch, many visited the ferns in the gardens and were able to admire the 'ridges' on which a number of the polystichums were now growing. What a transformation, with good growth and luxuriant fronds. Aided by a grant of £100 from NW Group funds, the better drainage and a top dressing of powdered limestone had, with Steve's hard work, made a big difference. We rattled through the AGM, re-electing the Secretary and Treasurer and having a good discussion about outings for 2016. Ann Haskins presented the accounts for the year, which showed just a small deficit of £15, remarkable in view of the grant awarded.

Ann Haskins won the Fern Codeword competition set by Alec. Melville Thomson kindly sacrificed his own hopes of glory and judged the indoor and outdoor fern competition. The prizes went to Trevor Piearce and Robert Crawford for their outstanding entries amid strong competition. Alec presented his programme for the South Lakes National Meeting for the 125th anniversary of the BPS. There was discussion about potential damage through so many visiting some of the more sensitive sites. The prospect of meeting some fern celebrities from around the world was welcomed.

Michael Hayward described his experiences growing *Lophosoria quadripinnata* in his garden and the huge discrepancy in size between different strains, and Peter Campion showed a few pictures to assist in identifying *Dryopteris aemula*, the filmy ferns and *Pilularia globulifera*.

After tea, scones and cake provided by members the meeting closed; another enjoyable AGM.

SCOTLAND

Ascog Hall Fernery, Isle of Bute – 21 April

Alastair Wardlaw

After several years of uncertainty, Ascog Hall Victorian Fernery (26/107631) on the Island of Bute now seems to have an assured future. The new owners, Karin and Michael Burke, are both very keen gardeners while admitting they are on a steep learning curve about ferns (aren't we all in some way?). This visit was organised as a working party.

photo: D. Christie

At work in the Ascog fernery, Bute
Nadia Russell & Tim Godfrey (*at back*)

We caught the 10.15 ferry from Wemyss Bay, arrived at Ascog about an hour later and got stuck into weeding, trimming, thinning-out and identification. We also brought a goodly number of ferns to enhance the collection. Mostly they went into the 'Fern Walk', an outside boggy area where there is a magnificent *Dicksonia antarctica* with 3.5-metre fronds.

The Ascog Fernery was originally constructed in Victorian times but eventually fell into decay. It was rescued in the 1990s by the late Wallace and Kath Fyfe who preceded the present owners. Scottish Natural Heritage helped fund the restoration. A massive restocking of the fernery was then done in 1997 by the Royal Botanic Garden Edinburgh, through David Mitchell. In today's working party, RBGE was represented by Andy Ensoll who had done further restocking in 2005.

The jewel in the Ascog crown, dating from the 1880s, is a massive specimen of *Todea barbara*. The caudex is the height and bulk of a head-high domestic fridge. It is believed (plausibly) to be around 1,000 years old and to be the oldest fern in Britain. It was in very good condition, as were the numerous tree ferns originally from RBGE: *Cibotium schiedei*, *Cyathea australis*, *C. dregei*, *C. lunulata*, *C. smithii*, *Dicksonia antarctica*, *D. fibrosa* and *D. squarrosa*. There was long-established *Culcita macrocarpa*, *Trichomanes speciosum*, *Blechnum cycadifolium* and *Woodwardia radicans*. *Nephrolepis caudata* and *Pyrrosia lingua* were spreading in abundance, demanding thinning and potting-up for plant sales.

We had a splendid picnic lunch laid on by Karin under a blazing sun, and eventually and reluctantly caught the 16.00 ferry back to the mainland. James Merryweather had an enthusiastic article about Ascog Fernery in *Pteridologist* 4(9): 51-53, 2003, and there is more information on the Ascog Hall Gardens website (ascogfernery.com).

photo: D. Christie

Picnic at Ascog

Clockwise, from left: Andy Ensoll, Gillian Little, Bridget Laue, Maurice Wilkins, Michael Burke, Alastair Wardlaw, Liza Downie, Tim Godfrey, Janey Floyd, Heather McHaffie, Nadia Russell, Therese Christie

Inversnaid, Loch Lomond, Stirling – 20 June

Bridget Laue

photo: P.M. Sharp

On the bonny, bonny banks...

Bridget Laue, Janey Floyd, Andy MacGregor, Liza Downie,
Tim Godfrey, Chris Nicholson, Nick Kempe

Under the leadership of Andy MacGregor, we met at Tarbet Pier to take the passenger ferry up and across Loch Lomond to Inversnaid (27/337089), and then to walk along the West Highland Way. This long distance footpath stretches for 96 miles, from Milngavie (on the north side of Glasgow; for any Sassenachs reading, the pronunciation is approximately Mull-guy) to Fort William. At typical pteridologist pace, we only made it as far as Rob Roy's cave (27/332100), a distance of less than one mile!

The pier wall at Inversnaid featured *Asplenium trichomanes*, but we did not see it elsewhere. *Polypodium* (species unknown) sprouted from the wall as we headed north, on a path just above the lake, with ferny slopes on our right-hand side. The dominant species were *Athyrium filix-femina*, *Dryopteris dilatata* and *D. affinis* agg.; armed with BPS Special Publication number 13, we felt confident in identifying both *D. borreri* and *D. affinis sensu stricto.* There were also attractive swathes of *Phegopteris connectilis* and plenty of *Oreopteris limbosperma* – the latter lacking sori but clearly characterised by their shorter pinnae towards the base of the stipe. We also saw *Blechnum spicant*, and *Asplenium adiantum-nigrum* growing on a rock. But the highlights of the walk appeared a little later – as we approached various large rocks, darker patches among the moss were seen to be filmy ferns. Both *Hymenophyllum wilsonii* and *H. tunbrigense* were found, each at several sites, but never together on the same rock.

After picnicking on a large flat boulder at the water's edge, and inspecting the legendary bolthole of Rob Roy MacGregor, we varied our return route by following the RSPB trail that climbs steeply away from the loch-side before looping back down to the original path. This diversion was fern-poor: a lot of *Pteridium aquilinum*, but little else. Nevertheless, the views were grand, the bird life was interesting, and a fritillary posed conveniently for those with cameras. We capped a fine day by taking tea in the sunshine outside the Inversnaid Hotel as we waited for the return ferry.

BioBlitz, Dawyck Botanic Garden (36/167353) – 25 July — Chris Nicholson

(*Participants*: Heather McHaffie (leader), Bridget Laue, Paul Sharp, Frank Katzer, Chris Nicholson.)

photo: P.M. Sharp

BPS stand at the Dawyck BioBlitz
Frank Katzer, Bridget Laue, Chris Nicholson

It can be a tough ask tempting people, particularly those with children, to explore the wonders of the pteridological world when a man in chest-high waders and brandishing a net is luring them away with promises of pond-dwelling creepy crawlies. However, Heather and Bridget had set up an attractive display with beautiful specimens of native and non-native ferns, BPS literature, and a microscope to view examples of *Equisetum* spores.

Paul manned the stall while Heather and Bridget took two groups on a tour of the garden to show examples of our native ferns and their key identification features. Meanwhile Frank and I went out to do a survey of the number of native fern species occurring naturally in the garden. It is divided into areas and the task was to record the species in each area, excluding those natives that had been planted. We recorded 13 different species in total across the whole of the garden.

The damp weather was probably to blame for the relatively low numbers of people attending the BioBlitz, but it was nevertheless an enjoyable day and interesting to interact with members of other specialist groups – moths, slugs, bugs, birds and bryophytes, to name but a few.

Lochalsh, Ross & Cromarty – 14-16 August — James Merryweather

(*Participants*: Tim Godfrey, Kevin Byrne, Liza Downie, Roger Golding, Bridget Laue, Paul Sharp, James Merryweather (leader), Mike Taylor.)

Late on the Friday, eight members gathered at the National Trust for Scotland's education room in Balmacara Square (18/806283), four miles short of the Skye Bridge, for a weekend of pteridology. After an hour examining the ferns along nearby lanes, we strolled back to The Square for a convivial traditional supper at Beth's Café: Cullen Skink (smoked haddock soup), haggis, neeps and tatties, and for dessert cranachan (whipped cream laced with whisky, incorporating toasted oats and raspberries).

On Saturday morning we parked by Achmore village hall (18/856336) and strolled along the minor road to the shore at Fernaig (true!). There were ferns all the way, on roadside banks, in ditches and along walls, invisible under dense vegetation, where we had plenty of opportunity to argue about the identities of polypodies and male ferns, introducing newer members to what they might expect of the meeting. Actually, so that nobody should feel left out, we quickly adjusted our behaviour and added helpful tuition between necessary episodes of perplexing controversy.

Having reached the shore of Outer Loch Carron, we lunched and then set off on a somewhat perilous route that took us through gloopy mud across a shallow river, through a tight-

fitting gorge and then along a short stretch of railway: Kyle of Lochalsh to Inverness. It was a remarkable coincidence that one of the infrequent trains came along, but forewarned by its distant sound we kept well out of its way before climbing up the inshore rocky slope into birch woodland full of beech fern (*Phegopteris connectilis*) and hay-scented buckler fern (*Dryopteris aemula*) below the impressive Ravenscraig cliffs.

Before long we emerged on the road between Achmore and Plockton, the most interesting part of the day's itinerary, for here on the roadside were all five of the usual British male ferns, including colonies of large but convincing *D. oreades*, which is sometimes found at sea level in this area. There was a typical woodland flora, with *Equisetum sylvaticum*, *Phegopteris connectilis*, *Gymnocarpium dryopteris*, *Dryopteris dilatata*, *Blechnum spicant*, *Oreopteris limbosperma*, *Hymenophyllum wilsonii*, male and buckler ferns, interrupted by wet rock-faces, ostensibly impermeable and acidic but flushed with base-enriched water that supported *Asplenium trichomanes* subsp. *trichomanes* and *Polystichum aculeatum*. Although the occasional scollie may be found, *P. setiferum* is almost absent from the Highlands, and there is just a possible contender on Skye and a few plants at Applecross that are questionably of garden origin.

The male ferns here included a strange semi-pinnatifid version of what was agreed to be *Dryopteris borreri*. Eight years ago I sent Clive Jermy specimen fronds for his assessment, but his opinion was inconclusive. Perhaps readers recall a short note I put into *Pteridologist* 4(6): 169, 2007, showing a single pinna on *D. affinis* that resembled the feature exhibited by all of these '*D. borreri*'. There's some work to be done here.

On the Sunday, we visited some sites around my home in Lochalsh: Kirkton churchyard, where *Polypodium interjectum* (confirmed by microscope) showed markedly different morphologies, and a roadside fen where marginal ancient elders were festooned with *P. interjectum* and wall tops by *P. vulgare*. A nearby boulder was home to a small colony of *P.* × *mantoniae*, a hybrid that is probably very common in this region, but specimens require checking. The fen itself contained all of the local woodland ferns plus a fine colony of a local rarity, *Dryopteris carthusiana* (and possibly some specimens of its hybrid with *D. dilatata*, *D.* × *deweveri*). The day was rounded off by visiting the Glen Shiel battle site, a 'mountain habitat' (altitude 150 metres) on the way home for most, where we continued our discussion about the identity of equivocal male ferns – but the *D. oreades* here was typical beyond controversy.

photo: P.M. Sharp

In Glen Shiel

Roger Golding, Liza Downie, Bridget Laue, Kevin Byrne, James Merryweather

Strathbungo, Glasgow – 19 September

Frank McGavigan

(*Participants:* Chris Nicholson, Fiona MacKinnon, Alison Evans, Rachel Bailey, Alastair Wardlaw, Maurice Wilkins, Bridget Laue, Paul Sharp, Gillian Little, Janey Floyd, Liza Downie, Tim Godfrey, Nick Kempe, Michael Hutchinson, Frank Katzer, Adrian Dyer, Frank McGavigan.)

As usual our final meeting was well attended, this year at Chris Nicholson and Fiona MacKinnon's house. Their garden is small but packed with interesting ferns and other plants. I particularly took note of *Athyrium filix-femina* 'Victoriae' (the genuine article), *Cryptogramma crispa* (a lovely fern not often found flourishing in gardens), *Woodsia obtusa*, *Deparia petersenii*, *Polystichum falcinellum* (these last three new to me), *Woodsia polystichoides* (which I managed to kill off through neglect in my own garden) and *Woodwardia unigemmata* (surviving the winter surprisingly well this far north – the secret is sharp drainage).

As well as being treated to a delicious lunch and afternoon tea with food aplenty, we were entertained with three varied and interesting presentations. Rachel Bailey described the planning and hard work that went into the show garden at Gardening Scotland, partly sponsored by the BPS, and which highlighted the ferns, mosses and lichens at RBGE's four Scottish gardens. Unfortunately, the ferocious wind and rain on judgement day so battered the specimen ferns that the stand narrowly missed out on a gold medal; it did win Best New Show Garden, however. Chris Nicholson described her chance discovery of moonwort while visiting Stoer in Assynt, made all the more exciting as this was her first sighting of this ancient rarity. Finally, Alison Evans reported on the BPS visit to Vercors in France. Despite the heat this was obviously a fascinating trip in a predominantly limestone area with a wide variety of ferns spotted, including *Polystichum* × *illyricum*. (Does anyone have this in cultivation? If so, may I beg a piece please?) (A full report on the Vercors trip appears elsewhere in this *Bulletin*.)

photo: R. Bailey

The fern-laden show garden at Gardening Scotland

We ended the day with a discussion of where to go for our outings next year. There is usually reluctance by members to come forth with suggestions as they know only too well that they will be asked to organise the trip, but such was the conviviality of the meeting and the hospitality of Chris and Fiona that there was no shortage of offers. You will have to wait until next year to see where we chose to go.

SOUTH-EAST

Pett Cliffs & Bexhill-on-Sea, East Sussex – 13 June **Paul Ripley**
(Leader: Mark Border)

Eight members met at Pett Cliff (51/888133), where the Fairlight massif leaves the coastal marshland of Pett Level. The day started with cloud and wild wind, but progressed to warm sunshine in the afternoon. We were joined by members of the Hastings Geological Society – Peter and Joyce Austen, and Ken Brooks, author of the book *Geology and fossils of the Hastings area*. Some of us bought copies, which Ken signed.

The coastal cliffs between Pett and Fairlight reveal the beds of a shallow estuarial lake that covered this area 100 to 140 million years ago in the Cretaceous period. Unlike the slightly older Jurassic Coast of Dorset, which was covered by sea, fossils here represent land and freshwater animal and plant life. It was the first place where remains of Cretaceous mammals were found. We were shown 'bone beds' containing numerous fragments of plant material and the occasional fish scale, and in which mammal teeth are (rarely) found. We saw fossilised tree-fern (*Tempskya*) trunks, preserved partly by the silica they contain, and amazingly, the imprints of whole quillworts (*Isoetites*) preserved *in situ* where the waterline could be traced in the sandstone. Further south-west, nearer Hastings, fossil ferns (*Onychiopsis* and *Pterophyllum*) and horsetails (*Equisetites*) are not uncommonly found.

In the afternoon, joined by Karen Munyard, we visited Mark Border's garden in Bexhill-on-Sea (51/732096). In the space of little more than two years, Mark has created a partly wooded garden that shows off his collection to great advantage. I was impressed by *Polystichum aculeatum* 'Ken Trewren', an interesting collection of hart's tongue (*Asplenium scolopendrium*) varieties, attractively grown together in their own slightly sloping bed, and many *Polystichum setiferum* varieties. Mark very generously invited us to cannibalise his spore sowings, and Peter Tindley kindly brought a selection of *Adiantum* sporelings raised from plants at West Dean (how does he raise them so well and so quickly?), as well as some interesting and divergent tripinnate *Polystichum setiferum* varieties all grown from one sowing.

Mark Border provided us with welcome tea and cakes, and we are very grateful to him for his kind hospitality and for providing us with such an original, entertaining and rewarding day.

Folkestone Warren, Kent (Leaders: Pat Acock & Paul Ripley) – 1 August Paul Ripley

Six members managed to beat 'Operation Stack' on the M20 to meet above Folkestone Warren SSSI (61/255385). Having descended the steep zigzag path into the Warren, we entered *Asplenium scolopendrium* paradise. The challenge was to beat the record frond length of 3 foot 3⅞ inches set at our last visit. Formal and witnessed measurement confirmed that we had equalled the record but not beaten it. We also found *Polystichum setiferum* (strangely one plant only), *Dryopteris filix-mas*, *D. dilatata* and *D. carthusiana*.

Fortified by tea at the excellent Clifftop Café, we journeyed to the green at Brabourne Lees, where we met members of the Kent Botanical Recording Group. Led by Geoffrey Kitchener, who had first brought this site to our notice, we walked the short distance to a wood near Bog Farm (61/082399) past *Dryopteris filix-mas*, and *Pteridium aquilinum* doing its best to wreck a tarmac driveway. We also benefited from the expertise of the Recording Group, as they pointed out the species of grasses in the meadow we crossed, as well as *Ranunculus bulbosus* and a hybrid willowherb.

This extremely boggy wood contained *Athyrium filix-femina* in abundance, but also *Dryopteris filix-mas*, with *D. dilatata* and *D. carthusiana*, affording us the opportunity to

demonstrate the differences between the two. At a previous visit, spores from putative *D.* × *deweveri* were examined, but all appeared viable. Roger Golding examined a further plant at this visit; some 20% of spores were non-viable, insufficient to confirm hybridity.

The unique feature of this wood was the presence of *Osmunda regalis*, *Matteuccia struthiopteris* and *Onoclea sensibilis*. Presumably originally garden escapes, possibly from the neighbouring Bog Farm, the ferns were thriving and all fertile. Geoffrey pointed out to us the striking seed heads of honey garlic, another presumed garden escape.

The return via a chestnut coppice yielded a solitary *Asplenium scolopendrium*, more *Dryopteris filix-mas*, *D. dilatata* and *D. carthusiana*, but also a foliose form of *D. borreri*. These plants have intrigued us in the past, and the possibility of them being the hybrid *D.* × *critica* has been considered. Spores examined at a recent visit and again at this one by Roger, showed a very low incidence of abnormality. This, and the fact that all plants at the site were similar, suggest that this is *D. borreri* "forma *foliosum*" and not a hybrid.

We were delighted on our return to Brabourne Lees, to find that Geoffrey Kitchener's wife, Sarah, had prepared tea and cakes for us. Very many thanks to Sarah, and also to Geoffrey for introducing us to his group, and for showing us interesting sites and plants.

White Chimney Wood & The Walled Nursery, St Ronan's near Hawkhurst, Kent (Leader: Paul Ripley) – 15 August

Pat Acock

Eighteen of us met at The Walled Nursery, St Ronan's, near Hawkhurst (51/776307). After a refreshing coffee we drove with the minimum number of cars the short distance to White Chimney Wood (51/785323) where we met the wood's owner, Mr Burbage. He was using old country skills to make wattle screens etc. in a barn filled with rustic tools and machines such as a pole lathe, and had bought the wood to supply him with the materials he needed. He is trying to return the wood to its natural state, having just removed much of the *Rhododendron ponticum* understorey.

We walked through the mature wood, which was of mixed beech, hornbeam and oak. We descended to the stream up which we had to fight our way in places where the vegetation was very dense but we were rewarded by seeing most common Kentish ferns including *Dryopteris filix-mas*, *D. borreri*, *D. dilatata*, *D. affinis*, *Athyrium filix-femina*, *Asplenium scolopendrium* and *Polystichum setiferum*. Just before we climbed back up for lunch a fine colony of *P. aculeatum* was noted nestling on the stream bank. As the hill levelled out, a picture-perfect specimen of *Dryopteris carthusiana* was pointed out to us.

After lunch, Mr Burbage joined us as we descended to where we had left the river in the morning, and Paul led us further upstream to show us one fine specimen of *Dryopteris aemula* (51/7902.3253). This is a rare fern in Kent and confined to the Weald. We explored still further upstream across a road where on the next steep-sided part of the river we found a large colony of *Polystichum aculeatum* (51/7920.3265) – about 30 plants including some much larger ones. I must at this point apologise for misleading some by saying there were only a few sites for *P. aculeatum* in Kent, because on returning home I found that Eric Philp quotes 51 sites for it in *The New Atlas of The Kent Flora* (2010).

We thanked Mr Burbage and returned to The Walled Nursery, a family-run business with a few volunteers, which grows 90% of its own plants. They aim to restore all the rare Victorian greenhouses that were set within St Ronan's house, originally Tongswood, the home from 1903 of Charles Gunther of OXO fame. Many of us availed ourselves of plants from the nursery and well grown sporeling ferns from Peter Tindley, along with tea and cakes at the self-service café. Much refreshed and delighted to renew friendships old and new, Julian Reed proposed a vote of thanks to Paul Ripley before we all departed.

Emmetts Garden, near Ide Hill (TN14 6BA) & Pat Acock's Garden, St Mary Cray, Kent – 3 October

Raul Ripley & Pat Acock

photo: P.J. Acock

The Rockery at Emmetts Garden, Kent

About a dozen of us met in the car park at the National Trust's Emmetts Garden on a beautiful early autumn day. This charming garden is an Edwardian estate that was once owned by Frederic Lubbock, who was passionate about plants, especially rarer trees and shrubs. The garden stands on one of the highest spots in Kent, giving fabulous views on a bright day of the unspoilt Weald.

We entered the garden and were a little disappointed that the views were hidden by the autumnal mist but shortly afterwards encountered the rock garden. Espying ferns, we entered, and though one suspects most of the ferns had made their own way here, they were growing very well. These included *Polystichum setiferum*, *Asplenium scolopendrium*, *A. trichomanes* and *Dryopteris dilatata*. After a quick coffee and cake we walked into the woodland to see many of the common Kentish ferns and delighted in a bank of *Polystichum setiferum* (51/4790.5217), not a common sight in Kent. We descended to a hammer pond, seeing some large *Dryopteris affinis* agg. and *Athyrium filix-femina* on the way. We observed the pump in action, and in the boggy area *Osmunda regalis* was growing well.

photo: P.J. Acock

Emmetts Garden, Kent

Jennifer Ide with very large *Dryopteris affinis*

Although the ferns were scant compared with twenty years ago, we were able to make a few recommendations to the gardeners, and Geoffrey Kitchener, the BSBI recorder for Kent, was able to make quite a few new records for this natural area of the woods.

Skirting back the other way, we saw many exotic trees and shrubs along with remnants of the planted ferns.

After lunch and viewing the ferns at Pat Acock's home we settled down to a series of talks covering the Vercors excursion (France), Canada, New Zealand and Hawaii.

The members attending this meeting are most grateful to Pat and Grace Acock for their generous hospitality and excellent food.

SOUTH WALES AND THE BORDERS

Black Hill & Olchen Valley, Herefordshire – 11 June **Sue Dockerill**

On a bright and promising day, nine members plus a guest from Canada met about three miles north-west of Longtown at the car park at the base of the Black Hill (32/288328). At first there was little of pteridological interest apart from bracken, but as we descended the lane *Dryopteris dilatata*, *D. filix-mas*, *Athyrium filix-femina* and *Equisetum arvense* were soon added to the list. The lane became shadier, and in a ditch by the side we found the only *Polystichum setiferum* and *Dryopteris affinis* agg. (it was too early in the year to reliably identify the species) that we were to see all day. Before we left the lane we also saw *Asplenium trichomanes* subsp. *quadrivalens* on some old barn walls.

As we climbed the Olchen valley, several small streams crossed our path, many of which contained colonies of *Blechnum spicant* on their banks, looking very healthy and green with strong new growth. After this, the ascent had a stretch with few ferns except bracken until we approached the top end of the valley. Here *Cystopteris fragilis* first appeared by the path and some nearby exploring also revealed *Asplenium scolopendrium* and *Polystichum aculeatum*. At the top of the valley, the cliffs and screes on the opposite side of the brook looked interesting and exploring these we soon found several colonies of *Asplenium viride*, along with copious amounts of *A. trichomanes* subsp. *quadrivalens* and *Cystopteris fragilis* (32/266347). Following this line of cliffs round, *Phegopteris connectilis* was found, and we were also reunited with Martin Rickard. He had intrepidly made his way to the top of the valley, not along the main path that the rest of us had followed, but by crossing the brook lower down to reach a side valley that he climbed (32/265344). He was able to show us much larger stands of *P. connectilis*, plus *Gymnocarpium dryopteris* and *Huperzia selago*, all growing in a high cliff. In this valley he also found several small *Oreopteris limbosperma*, only just coming into growth, which may explain why we had not spotted any others as the area was an obvious one for this fern.

After a lunch break, we made our way to the trig point on the top of Black Hill and from there south-east to the rocky outcrops and screes of the Cat's Back ridge. On these we found more *Cystopteris fragilis*, *Gymnocarpium dryopteris* (this in considerable quantity in some places), *Asplenium trichomanes* subsp. *quadrivalens* and *Phegopteris connectilis*, and also added *Polypodium vulgare* and one small plant of *Asplenium adiantum-nigrum* to the list. The last find of the day was on the final outcrop of the ridge overlooking the car park, where some lovely plants of *A. ruta-muraria* snaked along limestone layers in the old red sandstone. Finally, our old friend bracken re-joined us as we descended to the cars and made our ways home.

The Blorenge, Monmouthshire – 2 July **Brian Dockerill**

In marked contrast to the previous day, the hottest recorded for July, eleven BPS members met north of Blaenavon at the Keeper's Pond (Pen-ffordd-goch) car park (32/254107) under an overcast sky with the threat of rain. After a brief introduction we crossed the road to the west and followed the footpath down towards the disused Pwll-du quarry, passing the inevitable bracken, *Pteridium aquilinum*, along with plentiful *Blechnum spicant* and *Oreopteris limbosperma*. Against an outcrop a short distance from the path were found good specimens of both *Dryopteris affinis* and *D. cambrensis*, and a little further on *D. borreri* was added to the tally. Shortly after this the path was bounded on the west by a wall of sandstone rock on which were found *Asplenium ruta-muraria*, *A. trichomanes* subsp. *quadrivalens* and *Cystopteris fragilis*, along with, at its base, *Dryopteris dilatata*.

Our first planned stop was to confirm the continued existence of one of two sites for *Asplenium viride* in Monmouthshire. With the aid of the *Flora of Monmouthshire* (Trevor

Evans, 2007) one patch was easily located (32/254113) but another recorded nearby could not be found. At this point the paths branched and we took the right-hand one to a bridge, passing *Polypodium interjectum* almost hidden under a hawthorn, and, in the moister conditions nearer the stream, *Athyrium filix-femina*, *Dryopteris filix-mas* and large stands of both *D. affinis* and *Oreopteris limbosperma.*

The path, an old tramway, turned back northwards, now with a rocky outcrop on the right and a retaining wall on the left. On the former were seen *Polypodium vulgare* and *Asplenium scolopendrium*, while one sharp-eyed member spotted a single *A. ceterach* on the wall below. Following the tramway we soon came to some curious objects, huge lumps of slag from the former Garnddyrys Forge built in 1816-17 by Thomas Hill and operating until circa 1861. On this unpromising surface were found *A. trichomanes* subsp. *quadrivalens* and *Polypodium interjectum* (32/257117). Reaching and crossing the road we soon found *Gymnocarpium dryopteris* on screes before retracing our steps to the *Asplenium viride* site for lunch and an encounter with plentiful midges.

After the break we took the left-most path to Pwll-du quarry itself, into which most of the party descended down a very steep incline. On acid debris we studied a possible plant of *Dryopteris oreades*, which unfortunately was sterile, making confirmation uncertain. On nearby limestone screes we found *Gymnocarpium robertianum* along with plentiful *D. affinis* agg., which was not studied further as by now it was raining steadily. Wisely, those of the party who had not gone down into the quarry were making their way to the cars, soon to be followed by the rest of us.

Finally, from the car park we went, some on foot and some by car, to see an extensive roadside colony of *Lycopodium clavatum* at 32/263107. After a day in which we had seen twenty, possibly twenty-one, taxa, some went to dry out with welcome refreshments in the Blaenavon Heritage Centre tea-room, while others headed home.

Two Herefordshire Gardens – 11 September

Brian Dockerill

Fourteen members met at Lower Hopton Farm near Stoke Lacy. Unfortunately the garden owner, Veronica Cross, was unwell but she very kindly allowed the visit to go ahead and we were greeted by her husband and son with coffee on arrival. Fortunately one of our members, Martin Rickard, knew the garden very well and acted as the 'fern guide'. He proved invaluable as we were shown a very extensive collection of ferns, including many rarities new to most of us.

Despite having many pages of notes, limitations of space mean that it's only possible to mention some highlights and insights into cultivation. We were shown several plants derived by tissue culture, or as direct progeny, from the very rarely fertile *Polystichum setiferum* 'Bevis', including possibly the most beautiful of these, the extremely rare *P. setiferum* 'Plumosum Green'. Nearby, a testament to the quality of the plants here, were two large *Asplenium scolopendrium* varieties: 'Variegatum Bolton' and 'Superbum Kaye'. After admiring a series of *Dryopteris* and *Polystichum* species and cultivars we were shown two cyrtomiums. It was commented that *Cyrtomium fortunei* is one of the very few exotic species that regularly self-sets. Nearby was the variety *C. fortunei* var. *clivicola* with lobed pinnae margins, a very attractive form.

My next highlight was the best form of *Dryopteris affinis* 'Revolvens' with rolled back pinnae I have ever seen. Veronica's son, Ben, kindly allowed me to take a few pinnae for spores and so this will be offered via the Spore Exchange as well as being sown by me!

Veronica is experimenting with growing epiphytic ferns on a raised bed supported by logs infilled with soil and, judging by a very well growing *Pyrrosia sheareri*, this is a technique worth wider adoption. Throughout our visit, especially as we were being shown around by Martin, we were shown a great many polypodiums, unfortunately far too many to name. This was a very memorable visit to a great garden with a very enviable fern collection.

After a pub lunch in Woolhope, we travelled a few miles south to the garden of Stuart Donachie near Sollers Hope. We had been told that Stuart collects a very wide range of plants as well as ferns, and our first sight, alongside a beautiful Elizabethan house, was of raised gravel beds filled with very well grown alpines. We were soon crossing a small stream and were immediately struck by a huge plant of *Osmunda regalis* in the form usually referred to 'Undulata'. Along the garden-side stream we were soon surrounded by ferns, both species and cultivars, and unfortunately again too many to name but a fraction. There were wide colonies of, for example, *Woodwardia fimbriata*, *Onoclea sensibilis* and a six-foot-wide colony of *Cystopteris moupinense*, as well as large specimen plants. Of these I particularly noted very well grown examples of *Blechnum spicant* 'Rickard's Serrate', *Polystichum setiferum* 'Leinthall Starkes', a crested *Cystopteris fragilis*, and *Polystichum proliferum* along with, amongst many polypodiums, *Polypodium cambricum* 'Richard Kayse'. Despite the garden being cold, winter protection enabled a very healthy *Lophosoria quadripinnata* to be included.

photo: S.C. Dockerill

Garden of Stuart Donachie, Herefordshire

Stuart Donachie, Susan Lewis & Brian Dockerill looking at *Matteuccia struthiopteris* & *Woodwardia unigemmata*

This completed a visit to two very fine fern collections much enjoyed by all the participants.

Picton Castle Gardens (22/008134), Pembrokeshire – 1 October **Sue Dockerill**

Who would have thought that a meeting in early October could be blessed with such good weather? So, after revitalising drinks and cakes and an introductory talk from Roddy Milne, the head gardener and our host for the day, it was off into the garden to make the most of it.

First we visited the wilder woodland garden and the first fern to catch my eye was an enormous *Dryopteris wallichiana* standing at least four feet high, showing how well ferns can grow in this wet, mild climate. Further into the wood a wetter area was home to both shuttlecock ferns (*Matteuccia struthiopteris* and *M. pensylvanica*), allowing us to see the differences, plus the closely related species *Pentarhizidium orientale* and *Onoclea sensibilis*. There was also a great range of typical dry woodland ferns, with *Dryopteris* and *Polystichum* species much in evidence and polypodiums clothing the branches of the trees. In the centre of this area was a fine collection of tree ferns including several large *Dicksonia antarctica* and a *D. lanata*. Some had been lost during the cold winters around 2009, but many had survived. Roddy told us that the only protection they get is a bracken plug in the centre, topped off to shed the water. Here we also saw the first of several large stands of *Blechnum cordatum*, in this case standing as tall as me and sporing well. On the way back to the castle a winding path was lined with *Osmunda regalis*, looking really good in its autumn dress of yellows and bronzes.

After a break for lunch, we sampled the other half of the garden, which is divided into several distinct parts. We resisted the temptations of the maze and the boardwalk through *Gunnera*, but fell prey to the jungle garden despite the absence of ferns. This was looking fantastic at this time of year and lived up well to its name. The walled garden was similarly

colourful and interesting, and, for the fern obsessed, also includes a shady fern house on the north side of the south wall. We spent some time in here looking at some unusual blechnums, several more tender cyatheas and dicksonias and a particularly impressive *Todea*.

Our final stop was a further piece of woodland, this time less wild and more gardened. Of particular interest to us was the fern walk, where around 60 varieties of fern were assembled, too many for me to list in full. A *Dryopteris* × *australis* caught my eye, and two *Polystichum setiferum* varieties, one very much like 'Foliosum Kaye' and one labelled *P. setiferum* 'Grandiceps' with huge terminal crests and much reduced lower pinnae. There was also an interesting selection of *Osmunda regalis*, including var. *spectabilis*, 'Cristata', 'Gracilis' and (my favourite of this group) 'Undulatifolia'.

Our thanks must go to Roddy for giving us such a splendid tour of this lovely garden – I for one will be back!

WESSEX

Burley, New Forest, Hampshire – 6 June

Pat Acock

We met in the car park near Woods Corner (41/218041), north of Burley village on the western side of the New Forest. After introducing us to new member Jane Markovic, Ashley Basil, co-leader for the day with his wife Jo, outlined the day's programme and gave us a specific New Forest safety briefing.

We had only covered 200 yards up on to the open heathland when Florida Connell called us all back as she had spotted 30 to 40 small ophioglossums, our quest for this site. Much counting of pairs of sporangia, many at 12 to 14, with a few higher, led us to believe that this uniformly tiny plant with pointed fronds was *Ophioglossum azoricum*. There were many hundreds at this small site, mostly on cropped low turf with a few entering the stunted bracken at the sides of the main path. Ronnie Viane later confirmed their identification by flow cytometry – they were hexaploid. Retracing our steps to the cars we followed the track into the woods and saw many common woodland ferns including a few *Oreopteris limbosperma* to the west of the track and some nice clumps of *Dryopteris carthusiana* and *D. affinis* agg.

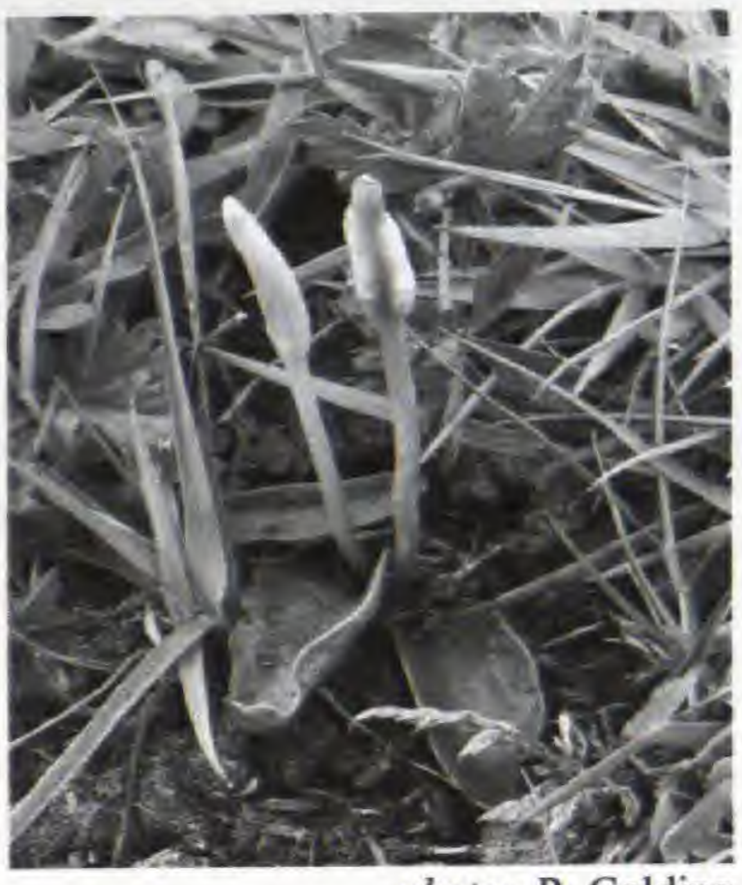


photo: R. Golding

Ophioglossum azoricum
near Burley, New Forest

photo: R. Golding

Phegopteris connectilis
at base of trees in New Forest

Jo Basil, Andrew Leonard, Mike Rowe, Jane Markovic, Pat Acock, Florida Connell

Back in the cars, we continued a short way north-east to 41/2281.0483, where to the north of the road were fine stands of *Oreopteris limbosperma* as well as a few plants of *Blechnum spicant*. We continued via Bolderwood Arboretum Ornamental Drive to Mark Ash Wood (41/2456.0723) to observe more splendid *O. limbosperma* on a falling slope near the south side of the road.

West of Emery Down we parked at White Moor and convinced our leaders that this would be a good place for lunch, whereupon a very fine carrot cake emerged to supplement our lunches. Suitably fuelled, we set off across the road to Wood Crates. At the source of a small stream in a boggy area, a little patch of *Phegopteris connectilis* was seen on the raised ground at the foot of a tree. Further down the valley we traversed more boggy ground beside the stream and were totally unprepared for the sight of large stands of *P. connectilis* gathered around the raised tree bases. In another such area Roger Golding found a very convincing *Dryopteris* × *deweveri* (41/2757.0858).

Finally we moved on to Ocknell Pond car park (41/2317.1190). Under hawthorn scrub around the pond we observed many fine *Ophioglossum vulgatum* with sporangium counts of 21 to 34 pairs. Then, in the short grass, very small specimens were found (41/2348.1186) with counts between 12 and 14, with a few having 18 and 20 sporangium pairs. Ronnie Viane found these to be tetraploid and thus *O. vulgatum*, however, plants just to the north of the pond were confirmed as the hexaploid *O. azoricum*. In the drying muddy pond we found *Pilularia globulifera* extending all over the exposed mud. Crossing the road to nearby Cadman's Pool, we searched in vain on a falling slope of boggy land for *Lycopodium clavatum*, recently recorded for the area. In the wood above this valley we saw many common woodland ferns including two *Dryopteris filix-mas*, which had been rare all day, and *D. carthusiana*.

We thanked Ashley and Jo Basil for a very interesting day spent in splendid warm sunshine, and for sharing these *Ophioglossum* sites, the first of which had only recently been discovered.

Isle of Purbeck, Dorset – 4 July

Andrew Leonard

On this hot day, whilst I was waylaid by my sat-nav into going over the chain ferry from Sandbanks to Studland, four members of the BPS met at 10.30 at the National Trust car park near The Square and Compass pub in Worth Matravers (30/974776). Ashley Basil had kindly remained here to act as my guide while the rest took the mile-long footpath through the village and across the downs to the sea and Winspit quarry. This beautiful place was used to quarry stone and has left amazing open caves, around which could be found many plants of *Asplenium marinum*. Many of these were quite small, but in the back of some of the caves grew monsters with fronds about a foot long (30/9774.7614). *A. scolopendrium* was found both outside and inside some of the caves. On the footpath to Worth Matravers was more *A. scolopendrium*, *Polystichum setiferum* and *Dryopteris filix-mas*.

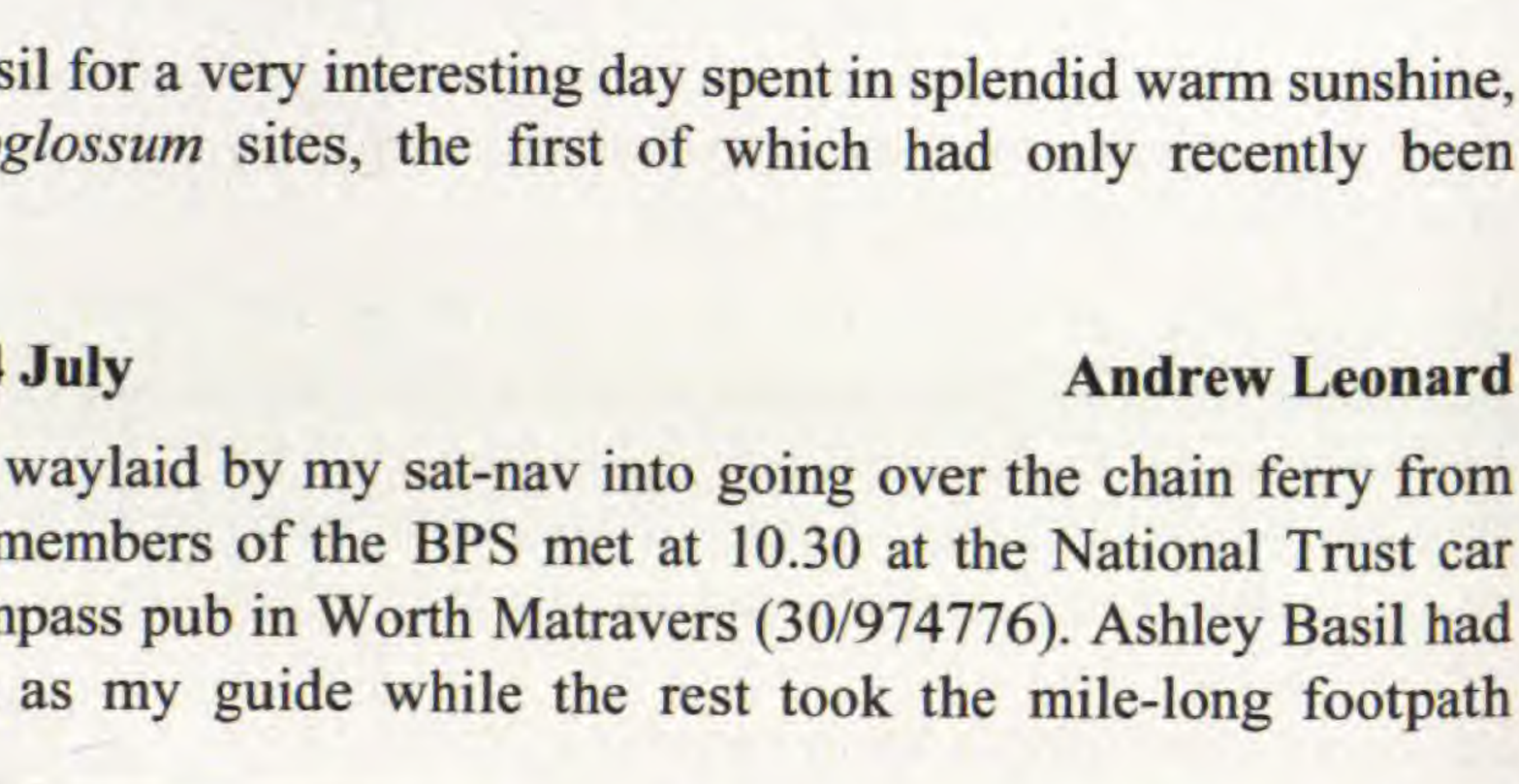


photo: A. Leonard

Cave at Winspit, Isle of Purbeck
Jurgie Schedler, Ashley & Jo Basil pointing to
Asplenium marinum

After a hot and tiring walk back up the hill we had a famous 'pint and a pasty' at The Square and Compass, greatly recommended by Jurgie Schedler, our leader for the day.

We then set off for Studland Bay. After parking our cars (40/0295.8564), the first stop was to see the large *Osmunda regalis* from the bird hide. The group then retraced its steps to walk along a sandy footpath in the direction of the nudist beach. Halfway along this path was a bridge over a small stream where there was a large colony of *Equisetum fluviatile*. Continuing on, we turned off to our right through a 'Hampshire gate' along a very small track. A few yards along and to our left we could see a small colony of *Thelypteris palustris* growing in an exposed situation. Walking through the heath to take a closer look we found that the ground was indeed wet and marshy. Ashley found a plant of *Dryopteris carthusiana* nearby and if you looked below the waist-high vegetation you could find many small plants of *D. carthusiana*, *D. dilatata* and *D. filix-mas*.

Retracing our steps through the gate, we took the footpath that runs parallel to the sea-shore. After about half a mile we came to something that looked like, and may well be, a large bomb crater (40/0381.8601) with spectacular colonies of *Lycopodiella inundata*. We continued on the path, through the car park and onto the main road. Walking back towards Studland, on our right we found a polypody growing quite successfully in the sand-dunes. The local records show that a hybrid *Polypodium* grows in the area, so we sent some fronds to Rob Cooke for further analysis. Rob later confirmed that we had found *P.* × *mantoniae*. We also found an *Asplenium adiantum-nigrum* in this unlikely habitat.

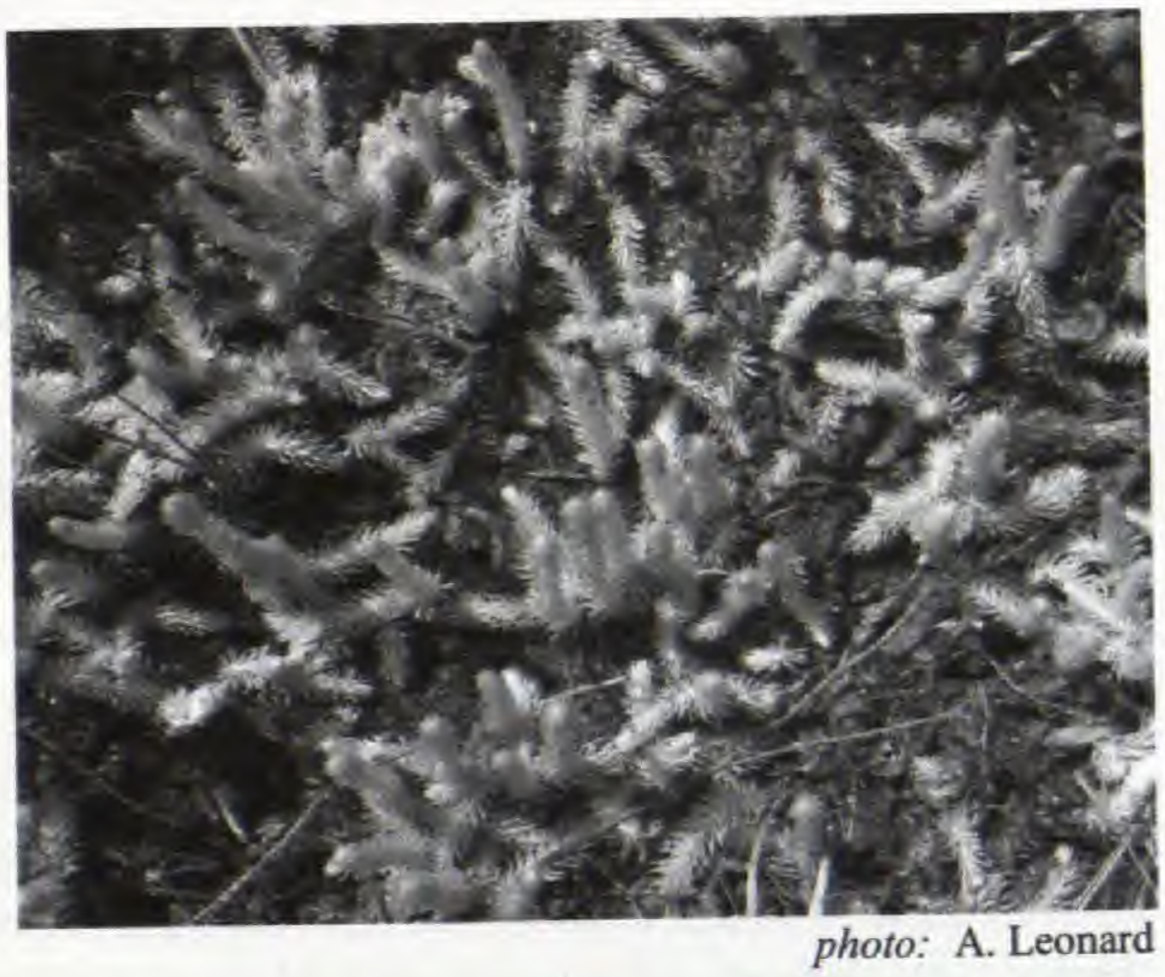


photo: A. Leonard

***Lycopodiella inundata* at Studland, Dorset**

We looked in vain for *Ophioglossum vulgatum* by the roadside, for which we had a detailed location and a promise that it was 'easy to find', before driving to Crawford Ferns Nursery for well earned tea and cakes.

Jane Markovic

A newcomer's view

I was asked to write a few words about my fern hunt in Purbeck. This was my second day out with the Wessex group and, as with the first trip in the New Forest, from the start I was made to feel extremely welcome, and was even offered a lift to the venue by Jo and Ashley, for which I was very grateful.

It was a beautiful sunny day and the scenery was magnificent, so that was good for starters. Although there weren't many of us and I was the only fern novice, everyone was really helpful and I wasn't made to feel ignorant, on the contrary, they seemed pleased to have a new member to share their knowledge with. There was plenty of walking, so good exercise (quite a puff actually) and it was interesting to explore some of the 'off the beaten track' areas of Purbeck that I hadn't visited before. My only comment is that I would have liked a slightly longer lunch break to recover some energy!

It was exciting to see some unusual ferns growing in their natural habitats (expertly described by Andrew) as well as some beautiful wild flowers. I was struck by the expertise and also the enthusiasm of the group, which was totally infectious. What was impressive was that the rest of the group had actually been to the sites a few weeks before to check that the ferns were growing where they were 'meant' to be to avoid disappointment.

It was inspiring too to visit Jurgie's beautiful garden and nursery at Spetisbury and very kind of him and Elaine to provide tea. I didn't need converting to the cause, but if I had done, I'm sure the Wessex group would have succeeded.

If anyone is thinking of joining BPS meetings but is worried that they are not knowledgeable enough, don't be. Give it a try and you'll be made to feel welcome and people won't look at you strangely if you use the wrong terminology!

New Forest Pillwort Survey – 8 August **Andrew Leonard**

We met near Beaulieu at the Hatchet Pond car park (41/368017 – entrance off the B3055) on a very hot August Saturday. Some of the early arrivals went to find *Asplenium adiantum-nigrum* growing in the wall along the eastern side of Hatchet Pond. When all the participants had arrived and after a short period of stroking the beautiful and friendly New Forest donkeys, we set off to the northern tip of Hatchet Pond to find three patches of *Pilularia globulifera*.

Our next stop was a few miles to the south-west at Crockford Inclosure, where we found some more colonies of *Pilularia globulifera* on both sides of the B3054. At Pilley we parked in the little car park at the end of Wooden House Lane and walked north to find several more patches of *Pilularia*.

After a leisurely lunch in the Fleur-de-Lys pub in Pilley, we went to see the *Adiantum capillus-veneris* growing in a railway bridge on Manchester Road in Sway (40/2811.9885). This fern had only recently been found by Jo Basil and was the highlight of the day. *Asplenium ceterach* was seen next, growing on another railway bridge at Sway Road, near Brockenhurst Manor Golf Club. On the way there, we stopped off on the B3055 just before the Sway Road junction and found another small patch of *Pilularia*.

This meeting was part of the *Pilularia* survey inspired by Fred Rumsey. All our sites were historical and all of them seemed in reasonable condition and were relatively easy to re-find. If we could come to any conclusion it would be that *Pilularia* seems to be holding its own, if not even thriving in the New Forest.

On a personal note, I think the group did not need much persuasion to abandon *Pilularia*-hunting in the afternoon and search for some rather rarer ferns of the New Forest.

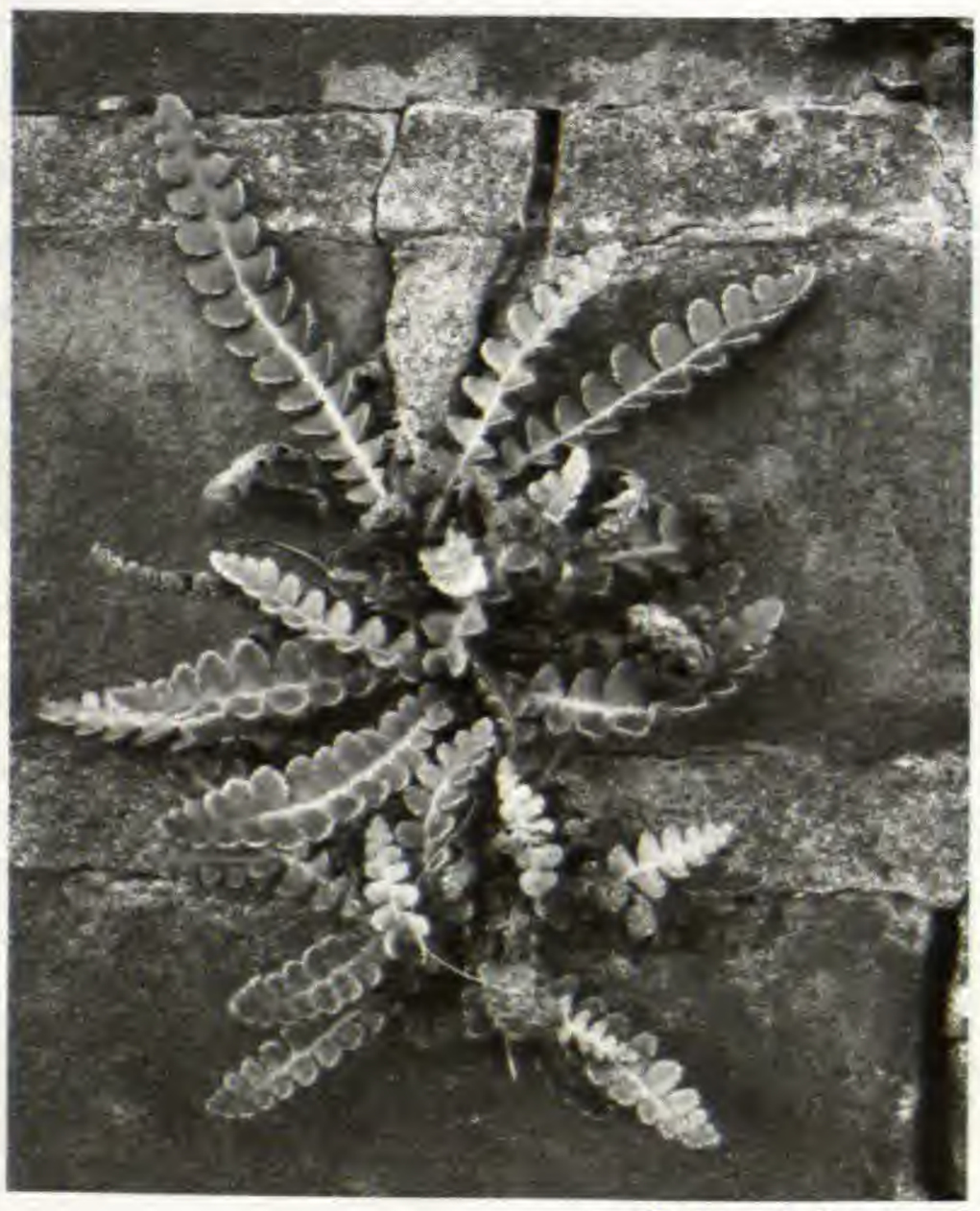


photo: A. Leonard

***Asplenium ceterach*, near Brockenhurst, New Forest**

YORKSHIRE FERN GROUP

Moonwort survey Redmire, Grinton, Yorkshire Dales – 23 May **Barry Wright**

Despite my best efforts to spend the day at home watching 'footie' and drinking lager, I was dragged out once again to play 'find the buried metal plates and count invisible moonworts and adder's tongues' in the 12 fixed quadrats along the Grinton to Redmire road at 44/039965.

This year we were fortunate to be joined by four gullible members of the Halifax Scientific Society (and two black labradors that we completely failed to train to be moonwort hounds). We promised they'd see moonworts, but forgot to tell them how big they were. It was a good year weather-wise, but not for the moonworts (*Botrychium lunaria*) and adder's tongues (*Ophioglossum vulgatum*), as shown in the cumulative summary table.

		Quadrat no.										Total	Quadrat no.		Total
		230	**231**	**232**	**233**	**236**	**322**	**323**	**324**	**325**	**326**		**267**	**269**	
Moonwort	2009	11	6	0	11	39	9	9	27	15	12	**139**	-	-	
	2010	20	10	3	27	75	22	4	24	17	11	**213**	-	-	
	2011	24	12	2	13	51	18	4	47	39	21	**231**	18	6	**24**
	2012	22	4	3	8	52	14	6	21	39	13	**182**	27	10	**37**
	2013	49	7	7	16	35	9	5	43	28	23	**222**	7	11	**18**
	2014	7	1	2	12	25	2	15	12	34	30	**140**	4	3	**7**
	2015	**26**	**2**	**5**	**13**	**8**	**0**	**6**	**2**	**31**	**35**	**128**	**2**	**8**	**10**
	Average	23	6	3	14	41	10	7	25	29	21		12	8	
Adder's tongue	2011												3	3	**6**
	2012												8	4	**12**
	2013												0	6	**6**
	2014												4	2	**6**
	2015												**2**	**7**	**9**
	Average												3	4	

The distribution of spikes in quadrats still varies from year to year. Once again core areas remained core areas, with outlier spikes continuing to be thrown up in areas where there were no spikes in previous years and also with some outlier spikes disappearing. Moonwort numbers in quadrats 236 and 324 were very considerably lower than in all previous years. Only quadrat 230 showed a significant increase over 2014, and the number of adder's tongues in quadrat 269 was good to see.

This was planned to be the last year the survey was done but, desperate to fill our meetings programme for 2016, we're off again. Glad I didn't sell the cocktail sticks on eBay! Many thanks once again to the loyal band of sad people who'd rather spend their Saturday squinting into short grass turf for the tiny spikes of moonwort and adder's tongue than sitting at home and watching the 'footie'! But the pub grub, good company and tasty Yorkshire beer go a long way to making it all worthwhile. Anyone tempted to join us in 2016?

Hull & Cottingham, East Yorkshire – 20 June — Yvonne Golding

Members of the Manchester and Yorkshire groups started their visit to Hull with a guided tour around Thwaite Botanic Gardens led by Roland Ennos. This was formerly the garden of Thwaite Hall and was laid out in the mid nineteenth century by the Hull shipping magnate Charles Wilson. The Hall and gardens were later sold to the University of Hull, which established its botanic garden there. The grounds, which surround a lake, extend to 23 acres and have some rare and surprisingly exotic trees. Fern planting was begun by The Friends of Thwaite Gardens in the winter border and subsequently Yvonne Golding and Roland Ennos planted a fern border of hardy ferns with a mix of evergreen and deciduous species along a north-facing wall. The border consequently looks attractive for much of the year. An experimental *Dicksonia antarctica* was planted in one corner. Yvonne showed members around her two glasshouses of tender ferns. She also tends a temperate fern house which was being replanted with a selection of blechnums. The evolution house exhibits a range of plants from algae to orchids. There is also a cactus and succulent house, an economic house and a newly planted *Agave* bench.

photo: A.J. Evans

Thwaite Botanic Gardens, East Yorkshire
John Grue, Roland Ennos, Henry Folkard, Yvonne Golding, Paul Ruston,
Peter Elcock, Eily Ruston

After the tour, Roland led the group to Hull Quayside (54/100282) to see seven native ferns growing on the harbour walls within a few yards of each other and with good views of The Deep, Hull's spectacular waterside aquarium. The most exciting of these ferns was an expanding colony of *Asplenium marinum*, a rare species on the east coast. Also present was lush *A. adiantum-nigrum*, *A. ruta-muraria*, *A. scolopendrium*, *A. trichomanes* subsp. *quadrivalens*, *Dryopteris filix-mas* and *D. dilatata*.

Lunch was taken in a quayside café, after which the group drove back to Cottingham to be shown around Steve Howe's tropical garden. This is somewhat of a surprise, with thirty species of bamboo, and for fern-lovers several well established specimens of *Dicksonia antarctica* and a good collection of polypodiums.

photo: Y.C. Golding

***Asplenium marinum* at Hull Quayside**

The meeting ended at Yvonne's garden in Cottingham for a cream tea (prepared with help from daughter Catherine) and a view of her expanding garden. Several fern beds displayed hardy foreign species, as well as *Dryopteris affinis*, *D. filix-mas*, *D. dilatata*, *D. carthusiana* and some of their cultivars, adiantums and athyriums. Under a pergola was a newly planted *Dicksonia antarctica* grove with a few woodwardias. There was also an experimental bed to see which ferns would grow in dry shade under a conifer (a surprising number!), plus pond-side plantings of *Osmunda* species with a few choice horsetails, a large *Trachycarpus fortunei* with underplanting of blechnums, and finally a narrow bed down the side of a path with an expanding collection of polypodiums including the three British native species and their hybrids. Many of these ferns were brought from Yvonne's previous gardens but they also include some generous donations from members Alison Evans, Henry Folkard, Paul Ruston, Robert Crawford, Steve Coleman, Julian Reed, Rob Cooke, Roger Golding and Tim Pyner, plus a few specimens from the collections of Ken Trewren and Jack Bouckley. Many thanks to all. What a day! I think everyone enjoyed it!

Stand Wood, Chatsworth, Derbyshire – 23 July

Paul Ruston

On a bright and breezy morning I had the pleasure of the company of Alexa Warden, a recently joined BPS member. Stand Wood was once part of the northern boundary of Sherwood Forest and sits on a west-facing slope overlooking the house, parks and gardens of Chatsworth. The Adventure Play area at the foot of the wooded slope was our first call. We examined the stone retaining wall, which supported *Cystopteris fragilis*, *Asplenium adiantum-nigrum*, *A. ruta-muraria* and *A. scolopendrium*. After thanking the gate-keeper – who showed great interest in what we were about – for allowing us free access to this site, we made our exit. *Polypodium vulgare* was seen on a wall close by.

Our walk through the woodland took us into a wet and shady ravine, at the foot of which stood an ancient yew tree. *Dryopteris borreri* and possibly *D. affinis* along with *Equisetum telmateia* were all quite prevalent. We continued on up through the woodland, noting *Dryopteris filix-mas*, *D. dilatata*, *Athyrium filix-femina* and *Blechnum spicant* growing along the edges of a drainage channel. Bracken (*Pteridium aquilinum*) did not seem too invasive and, it must be said, looked rather attractive. More *Dryopteris borreri* were seen on the bank of the service road leading to the Hunting Tower and quite a few of these showed distinct variation in frond morphology. Continuing along a bouldery track overshadowed with yew trees, we saw more *Polypodium vulgare* on top of a moss-covered boulder and some exceptionally large *Dryopteris dilatata*. Upon reaching level ground to the south of Emperor Lake we saw a group of multi-crowned ferns with very tall erect fronds with long slender stipes and straw-coloured scales (43/2673.7010). They were possibly *D.* × *critica*, but it is probably safer to say *D. borreri*. *D. carthusiana* was spotted nearby when Alexa pulled away the rank vegetation overgrowing one of the many channels that deliver water from the surrounding moors to Emperor Lake.

We made our way back to the car park by a direct route down past a series of waterfalls, passing many robust *Athyrium filix-femina* and wild angelica (*Angelica sylvestris*). Exiting this lush jungle of vegetation on to a service road, we saw a very attractive *Polystichum setiferum* (43/2649.7008) on the roadside bank.

After refreshments at the Stable Yard we decided to check on the colony of rustyback (*Asplenium ceterach*) growing on the walls of the overflow of the decommissioned reservoir on Ramsley Moor (43/2859.7433). Many thanks are due to Henry Folkard who had cleared away the scrub that had invaded this site over the years since it was fenced to prevent sheep grazing the rustyback. Braving the vicious nettles (and risking a snake bite – these moor lands are reputed to have a healthy population of adders), we found the rustyback to be thriving. We also looked around the pools of standing water on the bed of the drained reservoir for pillwort (*Pilularia globulifera*) but none was seen.

We finished our day here and returned home.

North Lincolnshire woodlands – 15 August

Bruce Brown

Paul Ruston and I met up with Neil Timm for an exploration of some woodlands that Neil had lined up for us. We began at Owlet Plantation, a Woodland Trust reserve about ten miles south-west of Scunthorpe. The car park (34/826954) had puddles after overnight rain, welcome in this drier part of the country, although our day proved to be warm and sunny.

The Woodland Trust was interested in our assessment of the ferns on site and we made a circular tour along paths through mostly mature oak and younger birch woodland, generally well-spaced with room for a ground flora of mainly *Dryopteris dilatata* and *Pteridium aquilinum*. We soon saw some large specimens of *Dryopteris filix-mas* and the upright fronds of *D. carthusiana*. A steep-sided ditch was followed for some way and this provided the only other species – *Blechnum spicant*, *Athyrium filix-femina* and *Oreopteris limbosperma*.

There was time before lunch for a quick look in Laughton Woods, a couple of miles north, last visited on a BPS meeting in 2007. We entered by the Tuetoes car park (44/846010) and saw the same species as in Owlet, but additionally a couple of *Dryopteris* specimens that on examination later under the microscope proved to be the infertile hybrid *D.* × *deweveri*.

There is a lot of sandy soil here and some heathland with ling and bell heather in full bloom. We hoped to see the *Polypodium vulgare* recorded in 2007 but this eluded us.

Our next venue was only a few miles to the west but, lying on the other side of the River Trent, we had to travel south to Gainsborough for a bridge to cross over, then back north finally reaching Haxey Turbary, a Lincolnshire Wildlife Trust reserve, at the end of a long bumpy lane (44/752018). This is carr woodland with alder and willows as well as oak and birch. 'Turbary' in the name implies that it was once an area for peat cutting, but it has never been commercially exploited in recent times, unlike the neighbouring Hatfield and Thorne Moors. Our specific interest here was *Osmunda regalis* – the only remaining site for it in Lincolnshire. Paul spotted the first one, about fifty metres off the path among brambles, *Dryopteris dilatata* and a lot of *D. carthusiana*. It was a large mature plant with fertile fronds and multiple moss-covered crowns, indicating a good age. The ground underfoot was soft and mossy but not squelchy, although it seemed likely that the water table was not far below. We also noted a few plants of *D. filix-mas* and *Athyrium filix-femina*, then further along the path there was a change to bracken domination. It was swamping everything else, giving us the impression that the site must be getting drier over the years. We circled back leaving the bracken behind, and soon another smaller *Osmunda* was found, also with *Dryopteris carthusiana*.

photo: B.N. Brown

Paul Ruston & Neil Timm beside *Osmunda regalis* at Haxey Turbary, Lincolnshire

Neil reckons there are six known osmundas, all mature specimens and with no sign of regeneration. To make the population more viable, the Wildlife Trust initiated a project to re-introduce more plants. Neil has become involved by collecting local spores and bringing on new plants in his nursery. These are now about six inches tall and Trust members are looking after them until they are big enough to plant out in the wood. We also selected a few *Dryopteris* specimens for a microscope check, but all proved to be fertile, so *D.* × *deweveri* was not confirmed (although one would think it likely to be present).

Gunnerside Gill, Swaledale, Yorkshire Dales National Park – 13 September

Bruce Brown

Gunnerside Gill is a substantial tributary of the River Swale, flowing south from high Pennine moorland to reach the main river at the village of Gunnerside, where the five of us met (34/951982). In its lower reaches it is well wooded, higher up is moorland, and throughout its length the archaeological remains of a once active lead mining industry are still very much apparent. Before my time, our Group visited the Gill in 1988, finding 15 fern species and three horsetails. Our leader, Barry Wright, who was probably on that meeting, hoped we would re-find these and increase the tally.

We took the path up the east side of the Gill, ticking off *Dryopteris filix-mas*, *D. dilatata* and *Athyrium filix-femina*. A large foliose *Dryopteris borreri* was checked afterwards but was this, and not an infertile *complexa* hybrid. Mike Wilcox spotted a big colony of *Equisetum telmateia* on the opposite bank, the first of many *Cystopteris fragilis* was seen, and in a wooded section *Polystichum aculeatum* appeared. *Pteridium aquilinum* was by now clothing open hillsides and *Polypodium vulgare* fronds sparsely clothed a wall top.

A short climb up some steps revealed a few *Blechnum spicant* plants growing close to a tufa-encrusted bank (there must be localised pH variations in the soil here), then higher up, with *Oreopteris limbosperma* appearing, we came across an area with birch trees and *Dryopteris carthusiana*. This would have been missed if we hadn't already seen it on a recce in May, as it was now completely surrounded by high bracken fronds. We took some likely looking pinnae back for a microscope check and confirmed *D.* × *deweveri* to be also present.

photo: A.J. Evans

Recording ferns in Gunnerside Gill, Yorkshire Dales

Tony Moverley, Barry Wright & Mike Wilcox

Dropping down to river level, a wet flush was found to be full of *Juncus* plus *Equisetum palustre*, and we managed to unearth a few flattened stems of *E. fluviatile*. Nearby on the gill's bank in well grazed short turf we were amazed to find two good spikes of *Botrychium lunaria* still present, exactly where we had recorded them in May. *Equisetum arvense* was also common near here.

Our next task was to cross over the beck, which was flowing well after overnight rain and involved some judicious boulder-hopping to reach the lead mining area on the west bank (34/940999). Two nice patches of *Phegopteris connectilis* were found under shady rocky overhangs and a few large *Dryopteris* clumps were identified as *D. cambrensis*. More beck crossings and paths led us higher up the valley to a wet craggy outcrop just above the west bank and close to Botcher Gill (35/939005), which was adorned with *Asplenium trichomanes* subsp. *quadrivalens* and a lot of *A. viride* including many young plants.

photo: A.J. Evans

Lunch in Gunnerside Gill, Yorkshire Dales

Bruce Brown, Tony Moverley, Mike Wilcox, Barry Wright

It took more hard work to get further upstream, climbing the hillside to avoid crags and eventually reaching another complex of lead mine workings high above the gill on the west bank. An area of large boulders near North Hush was the home of a small colony of *Dryopteris submontana*. Nearby on a limestone crag was *Asplenium ruta-muraria*. We descended carefully down the scree and spoil to cross the gill again and climb up to some more old mine buildings (35/940012). An adit entrance was festooned with large fronds of *Asplenium scolopendrium* and nearby scree had a lovely patch of *Gymnocarpium robertianum*. After enjoying the great views from this high level we set a good pace on the track descending to Gunnerside. We had seen 22 fern taxa and four horsetails, so were well pleased!

HORTICULTURAL SHOWS & OTHER EVENTS

SOUTHPORT FLOWER SHOW – 20-23 August

Michael Hayward

The theme for the show this year was 'China'. Our plan was to include as many ferns of Chinese origin as possible and to develop a theme of plants that were either eaten, or used in Chinese medicine. The centre of the display was a good specimen of *Diplazium esculentum* in a large oriental planter. Large fronds of *Woodwardia unigemmata* had a mind of their own and proved to be very difficult to arrange. The judge's comment on the stand was 'an interesting display' and we were awarded a silver medal. Next year we will stick to ferns selected for their decorative merit rather than their relevance to the theme!

Entries in the competitive section continued to fall, with only two challengers for the Individual Championship, however, both were of excellent standard. The BPS cup was again won by Robert Crawford, and Steve Coleman won the Happiland trophy for the highest number of first prizes in the other classes. Richard Keyes judged.

This year's winners of the competitive classes were:

Class 8 Individual Championship and BPS cup – four British ferns (dissimilar), two foreign ferns hardy in Great Britain and two greenhouse ferns (dissimilar):
1st Robert Crawford, 2nd Alison Evans

Class 9 One foreign fern hardy in Great Britain:
1st Steve Coleman, 2nd Audrey Smith, 3rd Alison Evans

Class 10 One British fern; any species or cultivar:
1st Steve Coleman, 2nd Brenda Taylor, 3rd Harvey Shepherd

Class 11 One greenhouse fern:
1st Christine Abbott, 2nd John Brendan Cull, 3rd Steve Coleman

Class 12 One *Asplenium scolopendrium*:
1st Audrey Smith, 2nd Steve Coleman, 3rd Harvey Shepherd

Class 13 One *Polypodium*:
1st Steve Coleman, 2nd Michael Hayward

Class 14 Three ferns of the same kind (genus); species or cultivars:
1st Steve Coleman, 2nd Alison Evans, 3rd Harvey Shepherd

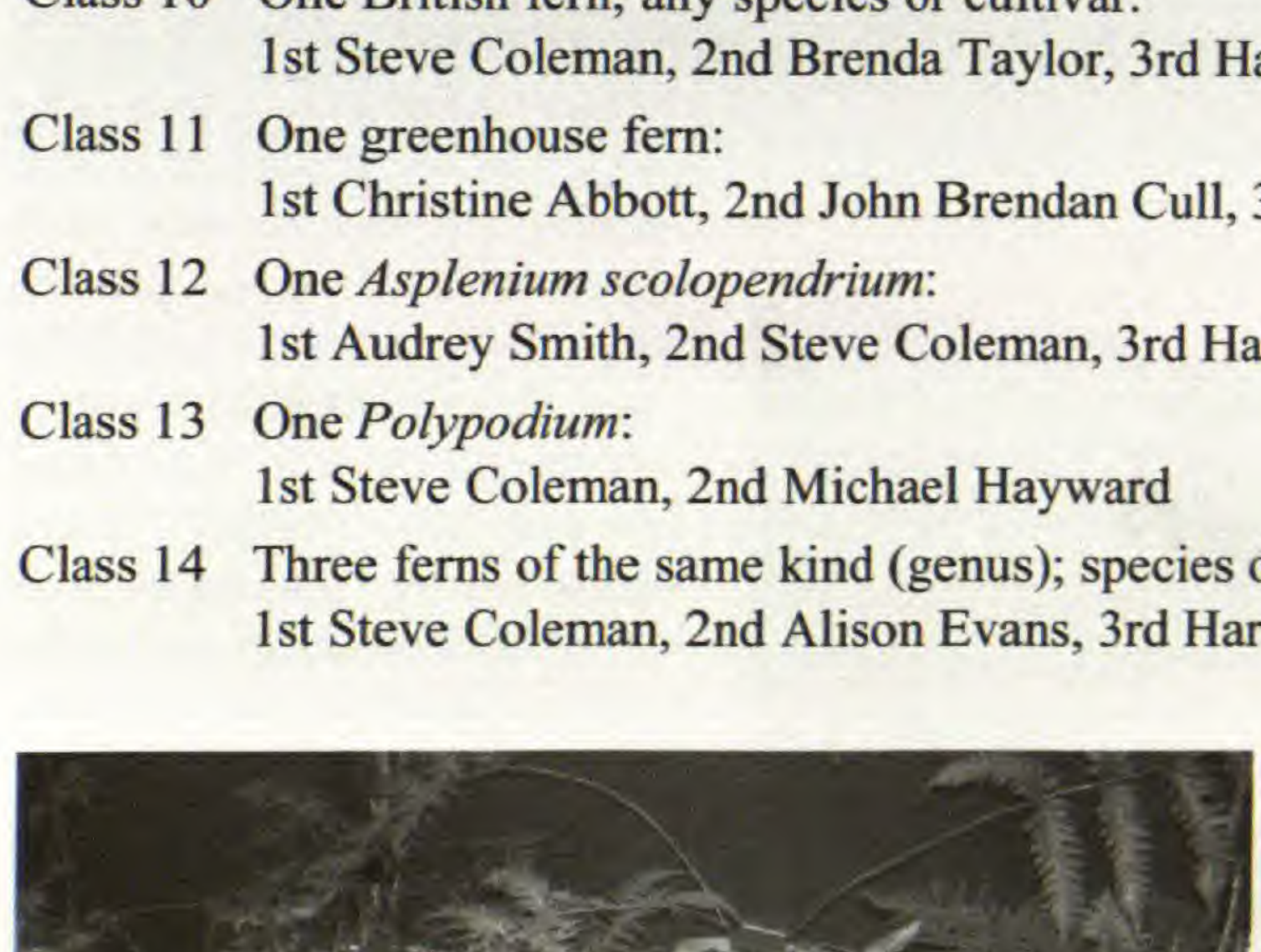


photo: A.J. Evans

Fern display on BPS stand at Southport Flower Show

My thanks are due to Steven Coleman, Robert Crawford, Alison Evans, Paul Evans, Roger Golding, Alec Greening, Ruth and Trevor Piearce and Harvey Shepherd for manning the stand during the show, and particularly to those who stood in at the last minute to cover for members who were unwell. Volunteers to help with the show are always most welcome and I can arrange sleep-overs for those travelling from distant counties.

The dates for the 2016 show are 18th to 21st August.

SECRETARIAL NOTES

Please note: *names and contact details of all officers can be found on the inside of the front cover of this* Bulletin. *Much of the information below is also on our website www.eBPS.org.uk.*

ANNUAL GENERAL MEETING 2016 – The 113th AGM will take place on Saturday 16th April 2016 at The Natural History Museum, London at 2.15 p.m.

SUBSCRIPTIONS 2016 – Subscriptions were due on 1st January and should be paid to the Membership Secretary, Alison Evans. Current rates are given inside the front cover of this issue. Cheques should be made payable to 'The British Pteridological Society'. Payment can also be made by **PayPal** via our website. **Standing Order** forms are available from the Membership Secretary and the BPS website. Standing Orders may be paid on 1st January or 1st February. In either case, membership is deemed to be from 1st January to 31st December.

Members who do not amend their Standing Orders with their bank and pay at the old rate shall be notified that they will not receive the *Fern Gazette* until such time as their Standing Orders are updated. Members still paying even earlier rates shall be notified that their name will be removed from the Membership List until the Standing Order is updated or cancelled. Any monies received from old Standing Orders will be treated as a donation.

GIFT AID – Since 2003 the BPS has been a registered charity. This enables us to claim back from the Inland Revenue 25p for every pound paid in the annual subscription for each member who authorises us to do so. In 2015 we were able to claim for 212 members, which brought in £1,428.82. While this is obviously an extremely valuable addition to the Society's annual income, it could be considerably more if all eligible members authorised it. All that is required is a minimal amount of form filling and a second class stamp. **Even better, the form has only to be filled in once.** There are a small number of provisos:

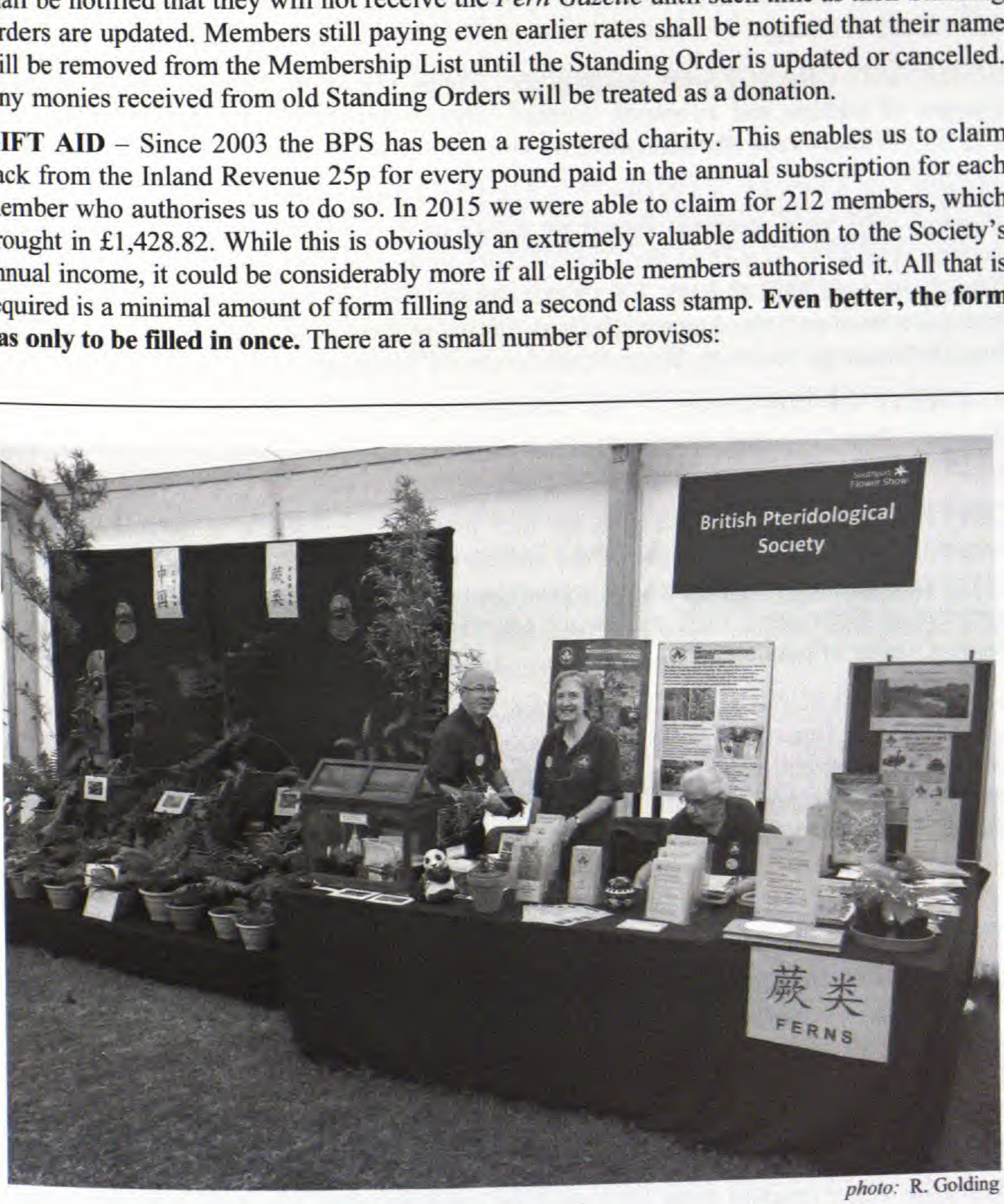


photo: R. Golding

BPS stand at Southport Flower Show
Steve Coleman, Alison Evans & Michael Hayward

1. Gift Aid is available only to members who reside in the UK.
2. Members on whose subscription Gift Aid is claimed must be paying income tax or capital gains tax at least equal to the amount claimed.
3. Members whose subscriptions are allowed as an expense in connection with their employment may not claim Gift Aid.

If the Inland Revenue allows us to claim relief on your membership subscription please authorise us to do so. It's the equivalent of a yearly donation to the Society of £6.25 for a full membership and £5.25 for an optional membership.

PUBLICATIONS BY AIRMAIL – Our journals can be sent by airmail to overseas members, provided that they advise the Membership Secretary and pay an additional subscription to cover airmail postage. See inside front cover for rates.

E-MAIL ADDRESSES – These are published in the Membership List 'for members who have a relatively stable e-mail address and who keep up-to-date with their messages'. A supplementary list and amendments are published in the *Bulletin*. To have your e-mail address added, changed or removed, please contact the Membership Secretary by e-mail.

NOTIFYING CHANGES OF ADDRESS – Please inform the Membership Secretary of changes of address and telephone number. She is responsible for notifying any other officers and appointees who need to know.

CODES OF SAFETY, CONDUCT AND DECLARATION FORM – All members attending BPS field meetings should be aware of the Society's *Safety Code* (see 2012 *Bulletin* 7(5): 475), as well as the *Code of Conduct for the Conservation and Enjoyment of Wild Plants* (see 2012 *Bulletin* 7(5): 474), and are required to sign an annual Declaration form (circulated with the Autumn Mailing). Copies of these documents can also be obtained from the Meetings Secretary, Bryan Smith, or the BPS website.

PAYMENT OF EXPENSES – The Treasurer has *Rules for Seeking Reimbursement of Personal Travelling and Administrative Expenses* by Officers and Members acting on behalf of the Society. Forms for claiming these expenses can be obtained from the Treasurer.

COPYRIGHT – All contributors to the BPS journals are required to sign an agreement assigning ownership of copyright of the article, photograph etc. to the BPS. This has the aim of safeguarding the contributors' work from unlawful copying and use. It does not stop contributors from using their own work elsewhere provided that they acknowledge the original source of publication.

GREENFIELD FUND – This fund, set up as a memorial to one of our Society's great fern growers, Percy Greenfield, is used to finance approved projects, helping with the cost of necessary equipment, books and travel expenses. Percy Greenfield's interest leaned very much towards the non-scientific side of our activities and it is felt that he would have wanted this taken into consideration when decisions are made. Workers eligible for university or college grants and similar support are not therefore eligible for help from the fund. Anyone wishing to apply for this funding can find details on our website or contact the General Secretary.

CENTENARY FUND – This fund is used to promote the study of all aspects of pteridophytes – horticultural, scientific and educational, whether by amateurs, students or professional pteridologists. As such its scope is much broader and more flexible than the Greenfield Fund. Anyone wishing to apply for this funding can find details on our website or contact the General Secretary.

THE J.W. DYCE AWARD – This award was set up to honour the memory of Jimmy Dyce who was a member from 1935 until his death in 1996. The ninth J.W. Dyce award will be made at the AGM 2016 to the author(s) of the best paper, article, book or other substantial piece of work published during 2015 in any of the three BPS journals, on the BPS

website or as a Special Publication. The award, which is a cash prize of £100, is open to everyone, whether professional or amateur pteridologist, horticulturalist or fern enthusiast.

PHOTOGRAPHIC COMPETITION – The BPS wishes to encourage members to take good photographs of ferns and fern-related items and make these available for the enjoyment of other members and the general public. The third annual competition is open to all members of the Society who have an interest in photography and wish to share their fern images with others. Entries (which must be previously unpublished photographs) will be displayed at the AGM, and winning entries will be decided by members at the AGM. Winning entries will be included in a special feature in the *Pteridologist* following the competition. In addition, and after judging, any or all of the competition entries received may be displayed on the BPS website and in the Newsletter for general viewing. Some entries will also be used in the BPS Fern calendar. Entries must be received by 31st March. See the Autumn Mailing or our website for details.

MEMBERS' INFORMATION SERVICE – Members often require information and advice on many aspects of pteridophytes but are reluctant to ask or simply do not know where to obtain help. Queries from members on the identification or cultivation of ferns should be sent to the Horticultural Information Adviser, Matt Busby.

BACK NUMBERS OF JOURNALS – If you have any gaps in your collection or are a relatively new member you may be interested in acquiring some back numbers of journals. Currently a bargain pack is available for £7 including postage. See our website for a full list. Contact Pat Acock (BackNumbers@eBPS.org.uk) who holds the stock.

FOREIGN FERN SOCIETY JOURNALS HELD BY THE SOCIETY – The Society exchanges journals with a number of other fern societies in the world. We have a collection from societies in America, Australia, India and the Netherlands. If members would like to browse these, please contact Tim Pyner (t.pyner@btinternet.com) who holds the stock.

READING CIRCLE – The Society operates a reading circle for the *American Fern Journal*, a quarterly publication containing much information for those seriously interested in ferns. The *Fiddlehead Forum*, which publishes many 'ferny' items of interest to the amateur grower, accompanies it. To receive these journals contact Tim Pyner (t.pyner@btinternet.com).

SPECIAL INTEREST GROUP: CULTIVARS – The Cultivar SIG welcomes anyone with a specialist interest in cultivars. They organise field trips, speakers and garden visits. For information contact Julian Reed (julianreed@waitrose.com).

BPS WEBSITE – The BPS wants to make its website the main platform for the flow of information from the BPS to its members and to the general public. The website provides information on the BPS itself and on any fern-related subject.

It is an important part of the philosophy of the website that it is inclusive and the BPS invites everyone to view, interact and contribute. The general public are invited to use the website and contribute to the forum and even create fern-related blogs without needing to join the BPS, although we always encourage new membership.

The website should be as interactive as is possible, so that we can facilitate all our traditional activities on-line. Nearly all the activities listed on this page are available on the website.

Please do have a look at **www.eBPS.org.uk**. Feedback is actively sought, welcome and enjoyed.

PRESERVING OUR FERN HERITAGE – Many BPS members have collections of ferns that they have built up over the years. Some will contain rare plants and cultivars that are no longer easily available. We feel that it is important to preserve these plants and collections where possible. Often, members give clear instructions as to how they want their collection to be dealt with if they are no longer able to care for it themselves, but this is not always the case.

Do you or a relative have a fern collection that can no longer be cared for? We have a network of volunteers around the country who can help in various ways, such as advice on how to maintain a collection, what value it may have, how to arrange sale of plants, or re-location to a public garden. Please contact Membership Secretary Alison Evans in the first instance, so that she can pass on your request to a volunteer local to you.

AMERICAN FERN SOCIETY – The AFS has had a reciprocal payment arrangement with the BPS for many years and this is available through their respective Membership Secretaries. See AFS advert on p. 191.

ROYAL HORTICULTURAL SOCIETY – Our Society is affiliated to the RHS. This enables a limited number of members to enjoy certain privileges in connection with RHS Shows, competitions and services. Some RHS Journals are available free to members at indoor meetings. Further information is available from the Treasurer.

BRITISH WILDLIFE – Concessionary individual subscriptions to *British Wildlife* magazine are available to BPS members: www.britishwildlife.com. This excellent journal occasionally carries articles on ferns and reviews fern publications.

MERCHANDISE – Have you bought a BPS sweatshirt, polo shirt, T-shirt or fleece yet? These are all dark green with a small embroidered BPS logo in yellow. Other items, such as BPS ties, metal badges, ferny greetings cards, bookmarks, pens, calendars, mugs, jute bags and take-in-the-field fern guides, are also for sale. You can see photos of items for sale on our website and order them using PayPal. New merchandise to celebrate our 125th anniversary is coming soon. Bryan and Gill Smith welcome suggestions for new stock.

BOOKSALES – It has become more difficult to find second-hand fern books at reasonable prices, so if you are thinking of selling any of your books please consider first offering them to the Society. Frank Katzer would also be pleased to receive any donated or bequeathed books that could then be offered to members at affordable prices. Please contact him by e-mail.

SPORE EXCHANGE – The current spore list is published on our website or can be obtained from Spore Exchange Organisers Brian and Sue Dockerill.

PLANT EXCHANGE – This scheme enables UK and EU members to dispose of surplus ferns to the advantage of those who would like to acquire some different species and varieties. Most of the plants offered are young sporelings. The exchange is administered mainly using an on-line system that can be accessed by members from the Plant Exchange page of the BPS website (www.ebps.org.uk/ferns/growing/the-plant-exchange-scheme/). Surplus plants can be added to the list and the information necessary to request available ferns can be found. Contact the Plant Exchange Organisers Brian and Sue Dockerill for further details, or to request a current list by post.

NURSERY ADVERTISEMENTS – Members with nurseries that offer ferns are reminded that they may place an advertisement in the *Bulletin*, *Pteridologist* and on the website free of charge in return for the inclusion of a note about the Society in their catalogues/ websites. The Website Editor can include an image if required. If members wish their nursery to be included, in the first instance please contact the General Secretary.

PUBLICITY & MARKETING – The redesigned website has become the first stop for fern-related news and events. Links to all our social media can be found in the left-hand margin of any page on the website. Social media is administered by Liz Evans except for Flickr, which is administered by Ashley Basil and Instagram administered by Razvan Chisu.

PUBLICITY & MARKETING OFFICER NEEDED! – Liz Evans has stood down from this post, though she will continue with Social Media. If you think you might enjoy taking on this role, please contact Liz Evans in the first instance.

EDUCATION – The Education Subcommittee would be very pleased to hear your ideas on how we can develop the educational role of the BPS. If you have information

about any fern-related educational initiatives or resources that you have found useful please contact the Education Officer.

BPS BULLETIN INDEXER NEEDED! – Jonathan Crowe compiled the very useful index to volumes 1 to 5 of the *BPS Bulletin*. Since then volumes 6 and 7 have been published. If you think you might be willing to index these, please contact Alison Paul. An interest in geography would be beneficial as it is mainly places (and people) that will be indexed!

FERN RECORDS – Members are encouraged to sign up and submit their records to Living Record, which can be accessed from the BPS website (www.eBPS.org.uk/ferns/recording/line-recording/). Alternatively, records of ferns, horsetails, clubmosses and quillworts in the wild may be sent to the BPS Recorder, Fred Rumsey, who will forward them to the Botanical Society of Britain and Ireland (BSBI), or members may like to contact the appropriate Vice-county Recorders directly. Recorders' addresses are available from the BSBI website or BSBI yearbook, which goes to all BSBI members; for those without access to the Internet or yearbook please contact the BPS Recorder for details. The BPS recording card is available on our website or directly from Fred.

NEW REGIONAL GROUP FOR THE MIDLANDS – We are pleased to announce the formation of a new group covering the Midlands. Contact the organiser A.R. (Matt) Busby (Matt4u@btopenworld.com) if you live in the area and want to get involved.

FORTHCOMING EVENTS IN 2016:

CHELSEA FLOWER SHOW, 24th-28th May – The BPS is having a stand at Chelsea this year as part of our 125th Anniversary celebrations. If you would like to volunteer to help on the stand during the show or if you live in or near London and can offer a bed to potential helpers or if you have any prize-winning ferns that you think would enhance the stand then please get in touch with the organiser Ann Robbins: ann@bawtry.net 01302 710318. More details can be found on our website. Volunteers will have free access on their specified day with time to look around the show.

SOUTHPORT FLOWER SHOW, 18th-21st August – Why not spend a few hours or a day helping to look after the Society's stand? You do not need to be an expert on ferns or fern growing. There is free entry to the Show and time to look around. If you grow ferns, why not consider entering your best specimens; Southport is one of the few shows with amateur classes for ferns. Details are available from Michael Hayward, 6 Far Moss Road, Blundellsands, Liverpool L23 8TQ; mhaywardL23@blueyonder.co.uk.

FERN COURSES IN 2016:

ROYAL BOTANIC GARDEN EDINBURGH, 11th June – A one-day fern identification workshop. Intermediate level. Tutor: Heather McHaffie. To book, contact RBGE education office 0131-248-2937.

FSC KINDROGAN FIELD CENTRE, Perthshire, 22nd-25th July – Fern Identification: a residential course. Intermediate level. Tutor: Heather McHaffie. To book, contact FSC on 01250-870150 or e-mail enquiries.kd@field-studies-council.org.

FSC RHYD-Y-CREUAU – DRAPERS' FIELD CENTRE, Snowdonia, 29th July-1st August – Fern Identification: a residential course. Intermediate level. Tutor: Chris Metherell. To book, contact FSC on 01690-710494 or e-mail enquiries.rc@field-studies-council.org.

FSC MILLPORT, Isle of Cumbrae, Scotland, 5th-7th August – An introduction to ferns: a residential course. Open for everyone. Tutor: Angus Hannah. To book, contact FSC on 01690-530581 or e-mail enquiries.sco@field-studies-council.org.

FSC PRESTON MONTFORD FIELD CENTRE, Shropshire, 9th August – Introduction to Fern Identification: a one-day course. Open for everyone. Tutor: Mark Duffell. To book, contact FSC on 0845-3307378 or e-mail enquiries.pm@field-studies-council.org.

You can find details of all FSC ferns courses via our BPS website, follow the link Events/Field Studies Council.

ANNUAL GENERAL MEETING 2015

MINUTES of the 112th Annual General Meeting of the British Pteridological Society, held on Saturday 11th April 2015 at Ness Botanic Gardens, Wirral, at 14.15 hrs.

IN THE CHAIR: The President, Prof. John Edgington.

PRESENT: Pat Acock, Shaun Barton, Peter Blake, Matt Busby, Steven Coleman, Florida Connell, Rob Cooke, Brian & Sue Dockerill, Roland Ennos, Alison Evans, Liz Evans, Paul Evans, Henry Folkard, Roger Golding, Yvonne Golding, John Grue, Andrew Harrison, Ann Haskins, Michael Hayward, David Hill, Dawn Isaac, Frank Katzer, Elise Knox-Thomas, Bridget Laue, Andrew Leonard, Frank McGavigan, Joy Neal, Alison Paul, Julian Reed, Martin Rickard, Paul Ripley, Ken Seal, Paul Sharp, Bryan & Gill Smith, Barrie Stevenson, Robert Sykes, Mike Taylor, Barry Thomas.

Item 1 – APOLOGIES FOR ABSENCE: Robert Crawford, Adrian Dyer, Mary Gibby, Alec Greening, Stephen & Karen Munyard, Alan Ogden, Chris Page, Tim Pyner, Michael Radley, Matt Stribley, Alastair Wardlaw.

Item 2 – APPROVAL OF THE MINUTES: Minutes of the 111th Annual General Meeting of the British Pteridological Society held on Saturday 12th April 2014 and published in the *Bulletin* (Vol. 8, No. 1) were approved and signed by the Chairman.

Item 3 – MATTERS ARISING: There were none.

Item 4a – REPORT OF THE GENERAL SECRETARY: This report by Yvonne Golding was published in the *Bulletin* (Vol. 8, No. 1). Yvonne said that when she writes her Report, it always amazes her what we achieve in the Society. This would not be possible without teamwork but we do need more people to help on the various committees. She also added that nothing would be possible without the membership paying their subscriptions and urged everyone to go out and recruit another member, and then how strong we would be. Go forth and multiply! In reply the President said that none of us would be here today without Yvonne and all the effort and work she puts into the Society.

Item 4b – REPORT OF THE TREASURER: The Society's accounts for 2014 were published in the *Bulletin* (Vol. 8, No. 1). The Treasurer, Gill Smith, said that she had nothing to add, except that we needed more members.

Barry Thomas asked if anything had been decided about the Graham Ackers bequest. The President explained that the Society had been considering a Fern Flora with illustrations by Nikki Simpson, but at the end of the year it had been decided that this was not practical. Consequently the money was still sitting in a ring-fenced account. Alison Paul said the committee had discussed publishing a fully illustrated and comprehensive guide to British ferns (and lycophytes) with photos contributed by members. This suggestion received general agreement. Martin Rickard suggested colour photographs on one side of the page and text on the other. Various other suggestions were made – photographs of ferns in members' local areas, something similar to *The observer's book of ferns* and a fern identification app. Other suggestions were to buy a good British fern site or to create a fern garden. Frank McGavigan and Barry Thomas expressed concern that the ring-fenced portion of the Graham Ackers bequest does not appear in the 2014 Accounts as a separate item. Gill Smith said that the money was still ring-fenced but she would put it in as a separate item in the 2015 Accounts if members thought that more transparent.

Item 5 – OFFICERS' REPORTS: The Officers' Reports were published in the *Bulletin* (Vol. 8, No. 1). The following updates were given:

Membership Secretary. Alison Evans reported that our numbers had gone up to 665 active members plus 66 family members, but it's that time of year when although we have new members joining, we don't know how many existing members are going to fail to pay their subscriptions, so numbers are probably a bit inflated.

Meetings Secretary. Next year is our 125th anniversary and Bryan Smith suggested that we 'watch this space' in the Autumn Mailing for details of 'A week in the Lakes' and other special events.

Publications Secretary. Martin Rickard reported that Michael Hayward's new Special Publication *The Jones nature prints* was on sale and encouraged people to buy it.

***Fern Gazette* Editor-in-Chief.** The President said that Mary Gibby wished to stand down as soon as a replacement can be found. She had done a very good job.

Pteridologist* Editor.** Alec Greening was not present but the President said that the *Pteridologist* was excellent this year, as was the ***Bulletin, edited by Alison Paul.

Website Co-ordinator. Liz Evans. The President noted that a team was now needed to build on what had been achieved by Anthony Pigott. He hoped there was agreement that the new Website was looking very good.

Education Officer. The President commented that Alison Evans had done a tremendous amount of work in this role – very praise-worthy.

Publicity and Marketing Officer. The President said that once again Liz Evans had done wonders with our social media presence. Liz said that she was standing down from the post as she felt it needed someone with more contacts in the horticultural world to take this forward into our 125th anniversary. There was some discussion about people that might be approached to provide publicity for us but no suggestions for a replacement for Liz.

Item 6 – COMMITTEE APPOINTEES' REPORTS

The Committee Appointees' Reports were published in the *Bulletin* (Vol. 8, No. 1). The following updates were given:

Spore Exchange Organisers. Brian and Sue Dockerill said that using the website was very successful. There is no charge for the spores they offer.

Julian Reed thanked Brian and Sue for all their hard work on behalf of the Society.

Plant Exchange Organiser. Jonathan Crowe wishes to hand over this task but would continue to the end of the year.

Booksales. Frank Katzer said that it had been a relatively quiet year but reiterated thanks to Yvonne Golding and Bridget Laue for taking books to events he could not attend.

Merchandise Organisers. Bryan and Gill Smith drew everyone's attention to the merchandise at the back of the Lecture Theatre, including the 2016 calendar.

Archivist. The President reported that Matt Busby had been Archivist for many years but now that the archives had been moved to World Museum Liverpool, he felt it was time to stand down. Michael Hayward had agreed to take over the role.

Item 7 – ELECTIONS

President-elect. This position was for one year and election was required as the President was two years into his three-year term of office. The President was happy to announce that Dr Fred Rumsey had indicated his willingness to stand, subject to election. This was proposed by Julian Reed, seconded by Rob Cooke and agreed unanimously.

Vice-Presidents. Jennifer Ide had served two terms and was not standing for re-election. Roger Golding and Robert Sykes had come to the end of their three-year term of office but were both standing for re-election for a further three-year term. Following a proposal by Alison Paul, seconded by Brian Dockerill, they were both re-elected. Our other Vice-Presidents are Matt Busby, Rob Cooke and Adrian Dyer.

Officers. Liz Evans wished to stand down as Publicity and Marketing Officer. This post remained unfilled but Liz was willing to carry on with some of the social media. She had also assumed the role of Web Co-ordinator during the year and was willing to continue, subject to election. Alison Evans wished to stand down as Education Officer and Peter Blake had agreed to take over, subject to election. This was proposed by Alison Evans and seconded by Pat Acock, with all in favour. All other Officers were available for election en bloc; this was proposed by Frank McGavigan and seconded by Paul Ripley. [General Secretary: Yvonne Golding, Committee Secretary: Ann Haskins, Treasurer: Gill Smith, who wishes to stand down at the end of the year, Membership Secretary: Alison Evans, Meetings Secretary: Bryan Smith, Conservation Officers: Heather McHaffie and Fred Rumsey, Project Officer: Anthony Pigott, Publications Secretary: Martin Rickard, *Fern Gazette* Editor: Mary Gibby, *Pteridologist* Editor: Alec Greening, *Bulletin* Editor: Alison Paul.]

Elected Committee Members. Frank McGavigan had served for five years and was not eligible for re-election. The President thanked him for his services to the Committee. All other committee members – Ian Bennallick, Stephen Jury, Bridget Laue, Tim Pyner and Julian Reed – were available for re-election, and this was done en bloc after being proposed by David Hill and seconded by Martin Rickard. Nominations were requested from the floor to fill the four remaining vacancies on the committee, but there were no volunteers.

Committee Appointments. There were no further changes to report.

Item 8 – Appointment of Independent Examiners. Dr Nick Hards and Mr Alex Storie were prepared to continue in this capacity and were re-appointed.

Item 9 – J.W. Dyce Award. Martin Rickard announced the winners of this award in reverse order – **2nd Kevel C. Lindsay** for his article on *The ferns of Antigua and Barbuda*, and **1st Rolf Thiemann** for his article entitled *Artificial hybrids of Asplenium*. Rolf wins £100. Both articles appeared in the 2014 *Pteridologist*.

Barry Thomas said it was most pleasing to see overseas members putting forward articles for the *Pteridologist*.

The Photographic Competition results were announced by Roland Ennos, who had organised the competition:

Class 1 – Natural ferns –1st Sue Olsen, 2nd Sue Dockerill
Class 2 – Cultivated ferns – 1st Paul Sharp, 2nd Alison Evans
Class 3 – Fern theme – 1st Alison Evans, 2nd Sue Olsen
Overall winner, with 25 votes – Alison Evans.

Item 10 – ANY OTHER BUSINESS. There was none.

John Edgington closed the meeting at 3.13 p.m.

Ann Haskins
Committee Secretary

ACCOUNTS FOR THE YEAR ENDING 31 DECEMBER 2015

I have examined the accounting records maintained by the Treasurer of the British Pteridological Society. I certify that the Accounts are a true and fair view of the financial position of the Society.

Alexander Storie AIB Scot., Gordon, Berwickshire, Independent Examiner, 29 February 2016

BPS ACCOUNTS FOR 2015

	2014	2015
ORDINARY ACCOUNT		
INCOME		
Subscriptions (*see note 1*)	£16,415.38	£19,126.40
Interest (*see note 11*)	£103.43	£104.39
Booksales (*see note 4*)	£1,115.00	£1,613.50
Merchandise (*see note 4*)	£1,054.46	£553.52
Inland Revenue Gift Aid	£1,494.86	£1,201.67
Publishers Licensing Society	£146.90	£111.60
Donations (*see note 5*)	£1,251.72	£109.80
Plant Sales & Spore Exchange	£0.00	£127.50
Prize Money (*see note 12*)	£825.00	£100.00
Graham Ackers Fund (£15,000)	£0.00	£0.00
TOTAL INCOME	**£22,406.75**	**£23,048.38**
EXPENDITURE		
Pteridologist	£6,947.26	£5,251.50
Fern Gazette	£5,463.15	£3,635.15
Bulletin	£5,538.55	£4,959.13
Printing & Stationery	£76.58	£473.00
Administration & Postage	£849.29	£667.86
Subscriptions to Societies	£85.00	£80.00
Plant & Spore Exchanges	£134.12	£122.40
Meetings	£140.00	£100.00
Merchandise (*see note 4*)	£1,205.91	£406.31
Trustees' Expenses	£617.90	£705.42
Booksales (*see note 4*)	£450.00	£1,584.63
Special Awards	£210.00	£190.00
Website	£137.96	£180.00
Autumn Mailing (*see note 8*)	£569.00	£446.60
Computer Leasing (*see note 7*)	£342.96	£126.00
Promotion & Advertising (*see note 2*)	£622.77	£234.00
Insurance	£62.00	£62.20
Donations/returned overpaid fees (*see note 6*)	£199.00	£209.95
Graham Ackers Fund	n/a	£400.00
Bank Charges (*see note 10*)	n/a	£60.00
TOTAL EXPENDITURE	**£23,651.45**	**£19,894.15**
Balance (income minus expenditure)	**-£1,244.70**	**£3,154.23**
Brought Forward from previous year	£33,346.78	£32,102.08
Total in Ordinary Account	**£32,102.08**	**£35,256.31**
CENTENARY FUND (Restricted Account)		
Interest (*see note 11*)	£19.74	£19.40
Interest brought forward from previous year	£779.93	£383.17
Donation (*see note 5*)	£0.00	£200.00
Grant (*see note 6*)	£416.50	£500.00
Total Interest	**£383.17**	**£102.57**
Capital brought forward from previous year	£5,583.73	£5,583.73
Total in Centenary Fund	**£5,966.90**	**£5,686.30**

GREENFIELD FUND (Restricted Account)

Interest (*see note 11*)	£6.46	£6.79
Interest brought forward from previous year	£1,031.81	£1,038.27
Grant	£0.00	£0.00
Donation (*see note 5*)	£0.00	£0.00
Total Interest	**£1,038.27**	**£1,045.06**
Capital brought forward from previous year	£1,051.00	£1,051.00
Total in Greenfield Fund	**£2,089.27**	**£2,096.06**

PUBLICATIONS ACCOUNT

Brought forward from previous year	£12,537.48	£15,196.29
Income	£5,897.92	£2,126.04
Interest (*see note 11*)	£38.89	£49.41
Expenditure	£3,278.00	£2,762.00
Total in Publications Account	**£15,196.29**	**£14,609.74**

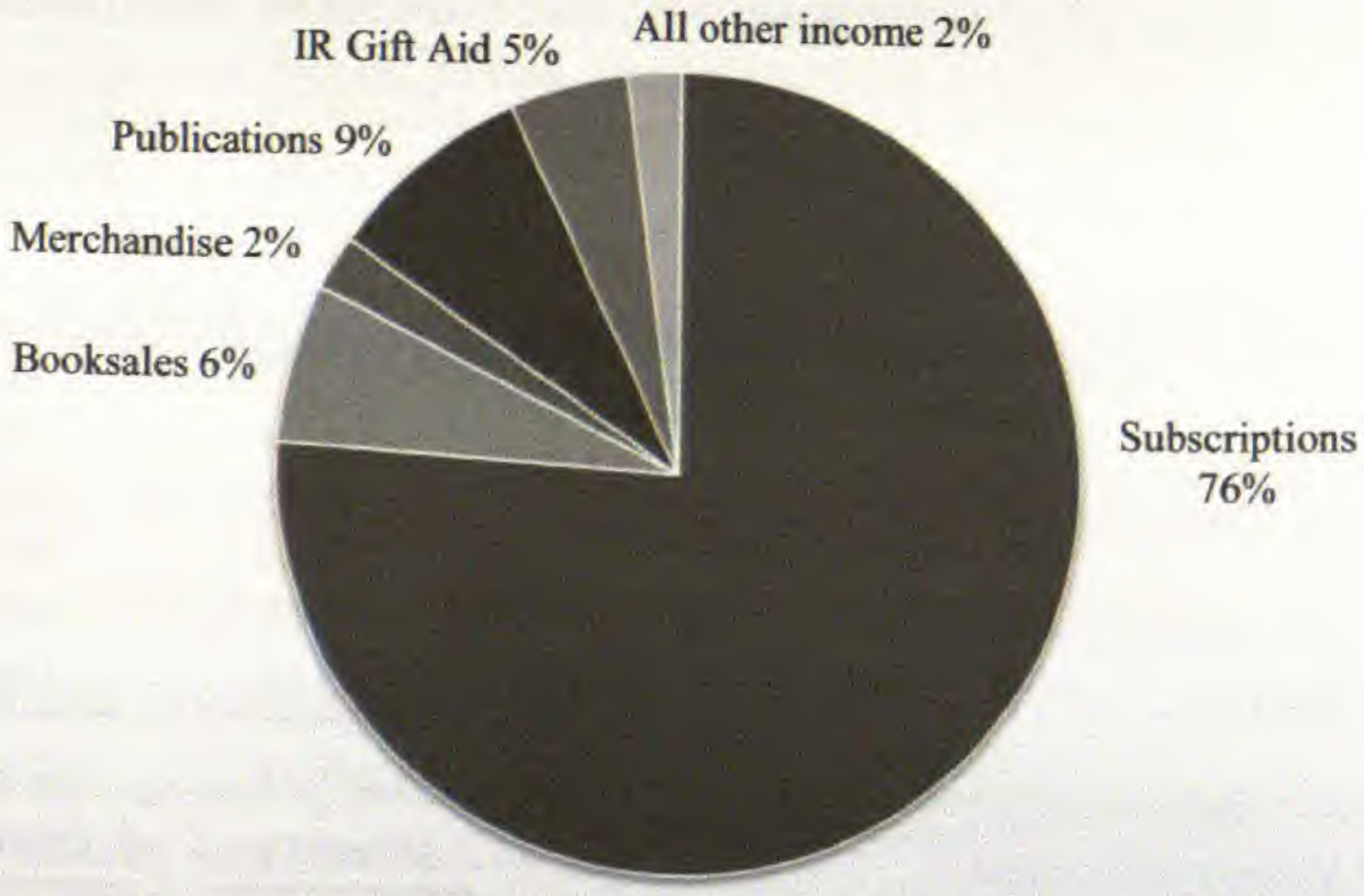
TOTAL FUNDS FOR YEAR ENDING 31 DECEMBER 2015

Ordinary Account	£32,102.08	£35,256.31
Centenary Fund	£5,966.90	£5,686.30
Greenfield Fund	£2,089.27	£2,096.06
Publications Account	£15,196.29	£14,609.74
Total Funds	**£55,354.54**	**£57,648.41**

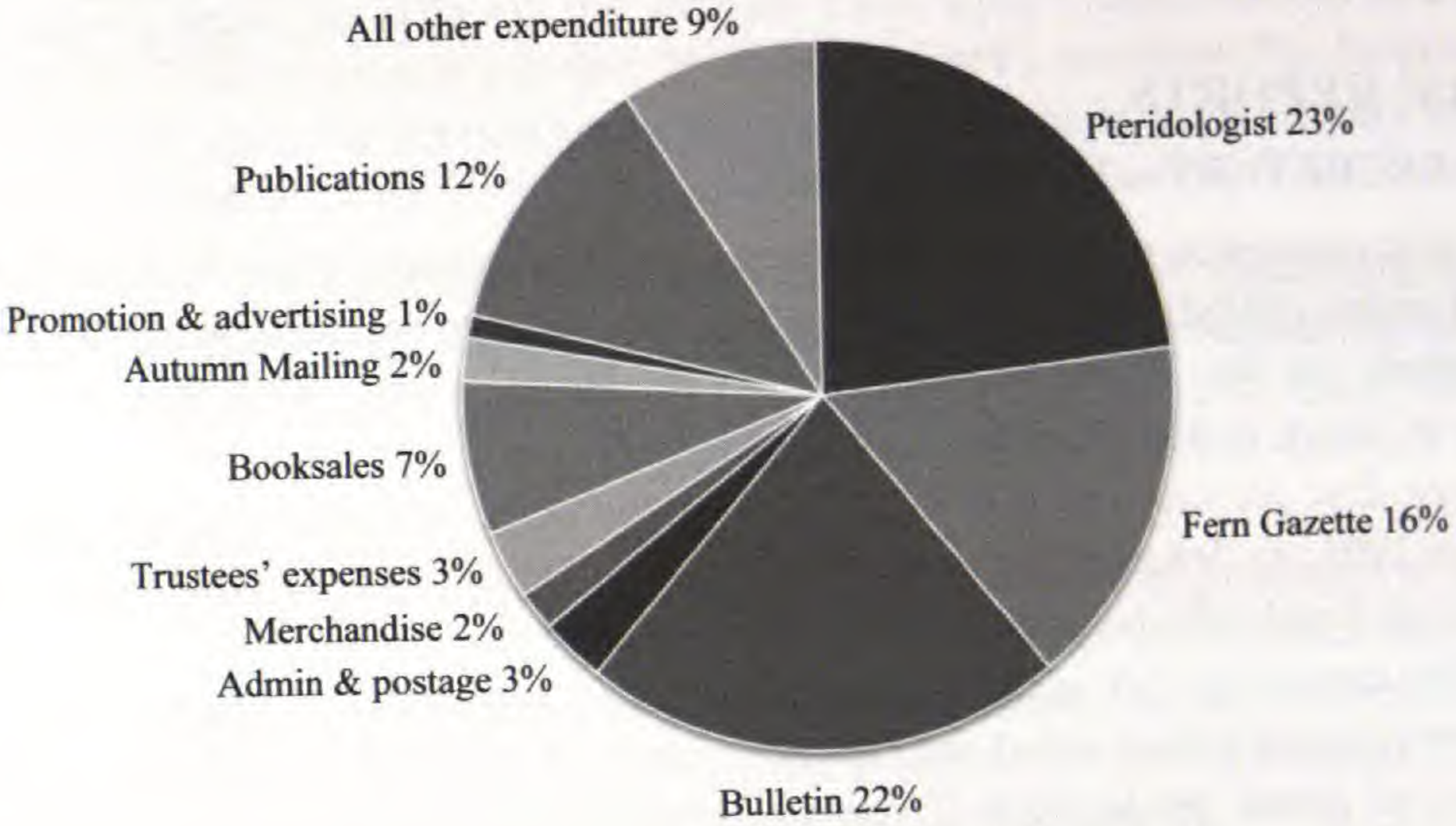
REPRESENTED BY

Charitable Organisations Investment Fund (COIF)	£39,930.20	£40,110.19
NatWest Bank & Others	£15,424.34	£17,538.22
Total Funds	**£55,354.54**	**£57,648.41**

INCOME 2015



EXPENDITURE 2015



NOTES TO THE ACCOUNTS

1. The accounts reflect the subscriptions actually received in the year.
2. The Society has been promoting and advertising the Society where possible via the RHS, BBC, county and national shows and public display days. Details of these appear in the *Bulletin*.
3. The Society has stock: FSC Key to Common Ferns – 40 valued at £100.
   What's that Fern? booklet – 800 valued at £1,600.
   Back issues of the *Bulletin*, *Fern Gazette* and *Pteridologist* valued at approximately £2,000.
   Merchandising valued at approximately £2,000 & capital of £1,116.39.
   Booksales – new and second-hand books valued at approximately £6,000 & capital of £4,469.06.
   BPS Special Publications (no. copies): no.3. Cultivation and Propagation (188) £940;
   no.4. History of British Pteridology (223) £892; no.5. BPS Abstracts & Papers (326) £1,304;
   no.6. CD Rom – BPS Minute Book (6) £60; no.8. New Atlas of Ferns (2) £20;
   no.9. Fern Books Before 1900 (213) £3,195; no.10. Occasional Paper of the BPS (14) £35.
   no.11. CD of Fern Gazette Vols 1-9 (12) £180; no.12. Who Found Our Ferns? (203) £3,045;
   no.13. Dryopteris affinis complex (12) £96; no.14. Jones Nature Prints +DVD (49) £980.
4. Full details of Merchandise and Booksales Accounts can be obtained from the Managers. These accounts are checked annually by the Treasurer.
5. The Society's two Restricted Funds are split into 'Capital' and 'Interest'. The 'Interest' section of the Funds is available for payment as grants; these funds will be 'topped up' with money from donations from time to time.
6. A Grant of £500 was given to Rachel Bailey (student) to buy plants for a display at Gardening Scotland – article to appear in the 2016 *Pteridologist*.
7. All computer leases finished in April 2015.
8. A large proportion of the Autumn Mailing was sent out to members via e-mail. This saved the Society valuable funds on postage.
9. All payments received via PayPal into the bank are net of charges.
10. An internet account with NatWest has been opened with a view to assisting information flow. This will cost the Society £20 per month and will be for a trial period only, with evaluation later in the year.
11. Interest rates have still been very low. Only £179.99 interest was added to our COIF account.
12. The Society was successful at Southport Flower Show. £100 was awarded in prize money.

Gillian Smith, Treasurer

REPORTS OF OFFICERS & COMMITTEE APPOINTEES FOR 2015

OFFICERS' REPORTS

GENERAL SECRETARY – Yvonne Golding

In 2015 the first committee meeting of the year was held in January at the Natural History Museum in London (NHM). The 112th Annual General Meeting was held in April at Ness Botanic Gardens on the Wirral – many thanks to Bryan Smith who took over the organisation at short notice. Thanks also go to Anthony Pigott who had set up and maintained our first website since 1997, and to Matt Busby who had looked after our Archive since 1991, to Jennifer Ide who stood down after serving six years as a Vice-President and to Frank McGavigan who stood down after five years' hard work on our committee. The committee met again at the NHM in May, and also in October when Ann Robbins was welcomed and co-opted onto the committee. We still have vacancies to fill on our committee so please get in touch if you are interested in helping to take our Society forward.

At our AGM the Publications Subcommittee awarded the eighth J.W. Dyce Award to Rolf Thiemann for his article in *Pteridologist* entitled 'Artificial hybrids of *Asplenium*'. Rolf's most interesting and well illustrated article was the last in a series of three. This award (of £100) is open to anyone who writes an interesting and informative article for any of our publications. There is also financial reward in our annual Photographic Competition. Please send in your best fern photographs. In 2015 the overall winner was Alison Evans.

It is always a sad duty to report on the deaths of BPS members. Since the last AGM we learned of the passing of John Woodhams, Marjorie Garstang, Brenda Smith, Jamie Taggart, Oliver Sacks, Simon Martin and Barry Smith. You can read obituaries of some of them in this *Bulletin*.

In 2015 members travelled widely, visiting Guernsey and south-east France. In the UK members went to Ness Botanic Gardens and visited Liverpool Museum, which now houses the BPS Archive. They ventured to Rutland, Oxfordshire, North Wales and Glasgow Botanic Gardens. In addition, members from nine regional groups visited fern sites in the wild and in gardens up and down the country. We have a new regional group covering the Midlands run by Matt Busby. Please continue to support your local groups and attend National Meetings. Not only are these excursions enjoyable but they also contribute fern records both in gardens and in the wild and facilitate valuable monitoring of rare fern populations as you can read in Fred Rumsey's report. Many thanks go to all the organisers.

We continued our long tradition of flying the flag for ferns at Southport Flower Show. This was run for many years by Matt Busby and latterly by Michael Hayward. At Southport ferns win prizes, this year a silver medal! As far as I know it is the only show in the UK that has horticultural classes for ferns so individuals can show their best plants. It is very rewarding, especially if you win! And if you live in Scotland you may know that the BPS contributed towards a fern display at 'Gardening Scotland' designed by new student member Rachel Bailey. It won a silver-gilt medal and 'Best new exhibitor'. Well done Rachel!

Our three journals continued to be popular, providing plenty of fern interest at all levels. *Pteridologist* is a great advert for our Society, encouraging people to join. Well done Alec

on a bumper issue in 2015. Our flagship website keeps us up to date on fern issues and advertises our Society to folk with whom we otherwise wouldn't engage. More people are now signing up to the BPS via the website. Once again congratulations to the team. Our Special Publications remain popular; Michael Hayward's excellent *The Jones nature prints* has sold well since its publication in the spring. Other titles have sold out and are being revised and reissued, with more in the pipeline; watch this space for *Polypodium cultivars*!

The Education Subcommittee, apart from having a presence at 'Gardening Scotland' and Southport Flower Show, were involved with events at many venues up and down the country. These included a BioBlitz at Dawyck Botanic Garden in Scotland, maintenance of the fern garden at Blencathra in Cumbria, working with the BSBI in Scotland, fern walks at Nymans in Sussex and in North Yorkshire, a three-day exhibition at RHS Wisley, and a stand at Big Nature Day at NHM in London. There were also opportunities to help establish ferneries and outdoor classrooms at Droylsden, Manchester and Broadbottom in Cheshire. In East Yorkshire we established fern plantings at Thwaite Botanic Gardens and in 2016 a new classroom is to be built, which will be available for BPS gatherings. This range of events is a remarkable achievement for a small team of members.

Our services to members continued to be first class. Those who run the Plant Exchange, Spore Exchange, Booksales and Merchandise are to be congratulated, but these services still require the help of others by providing plants and spores. Booksales benefit when members donate books or sell their collections to BPS. Merchandise keeps us looking the part at shows and events and on BPS excursions, which further helps to raise our profile. Do you need a new T-shirt? Look out for the 125th Anniversary merchandise!

I know I say this every year but it remains true. Looking back over the year I never fail to be amazed by what the BPS manages to achieve with a group of trusty volunteers who give their time for nothing other than the satisfaction of keeping the Society going for its members and to raise the profile of ferns to the general public.

I would now like to take this opportunity of thanking my BPS friends up and down the country who have visited me, sent letters, cards, flowers and presents and generally encouraged me to get through 2015, which was a difficult year for me. The BPS is more than just a Fern Society! I'm getting back on track for 2016 and looking forward to our 125th BPS anniversary celebratory events including Chelsea Flower Show and a week in the south lakes. Beyond that I hope to welcome you to our AGM in Hull, City of Culture in 2017, when I'm planning to retire. If you would like to have my job please write to Ann Haskins, in the first instance, for a job description. It is a very rewarding post and you make a lot of friends!

Thank you and Happy Ferning in 2016!

MEMBERSHIP SECRETARY – Alison Evans

We had 62 new members joining in 2015, 45 of them for the 2015 subscription year, and 17 who joined late in the year to start their membership in 2016. Thirty-nine of these joined via the website, using PayPal. We have had one new member so far in 2016. Sadly, during 2015 we learned of the death of five members, 15 resigned, and 59 members lapsed as they failed to pay their subscriptions.

We asked that members not intending to renew their subscription for the coming year should indicate this to the Membership Secretary, and we introduced a 'resignation' form on the website. Fortunately this did not lead to a flood of resignations, with only two people using the online form so far.

As of 6th January 2016, we had 645 active members plus 60 family members. This was made up as follows:

Full members	448
Optional members	120
Complimentary members	11
Honorary members	6
Students	9
Subscribers	51

Fifty-five members chose to pay through the American Fern Society (AFS), and seven members of the BPS paid their AFS fees via the BPS.

MEETINGS SECRETARY – Bryan Smith

The Meetings Subcommittee held a meeting in February to review progress on the 2015 programme and to plan the 2016 programme. Thereafter, as in previous years, most of our communication was conducted by e-mail. Early in the year we introduced the facility on the BPS website for people to sign up for meetings. We also modified our procedures affecting 'minors' on meetings.

We began the busy programme for 2015 with a trip to Guernsey in March (organised by Andrew Leonard), which was fully booked very early. The programme continued with the April Spring Meeting and AGM at Ness Botanic Gardens (organised by Yvonne Golding and Bryan Smith), which included a talk by Prof. Dianne Edwards CBE FRS and contributions by several BPS members, plus our second annual photographic competition. The next day members visited the Herbarium of the World Museum Liverpool. In June we spent a weekend exploring ferns in Rutland (organised by Rob Cooke) and in July a week was spent seeking out ferns in the Vercors National Park, SE France (organised by Pat Acock and led by Jean-Luc Destombes). Also in July, the Cultivar Group held a one-day National Meeting in Oxfordshire (organised by Nick Hards), and in September we spent four days based at Criccieth exploring ferns in North Wales (organised by Martin Rickard). The Autumn Indoor Meeting in October at Glasgow Botanic Gardens (organised by Pat Acock) had a variety of talks on identifying and growing ferns, followed by visits the next day to two Scottish members' gardens. Once again in August we supported the Southport Flower Show and the BPS stand organised by Michael Hayward won a silver medal for its Chinese theme. Typically, each field meeting attracted 20 to 30 people, and the indoor meetings 40 to 50 people. Reports on all of these meetings can be found in this *Bulletin*.

Details of meetings planned for 2016 were circulated with the Autumn Mailing and are available on the website. As this is our 125th Anniversary year, the programme is exceptionally busy. It includes a weekend in North Somerset (June), a week in Cumbria (July), a one-day Cultivar Group meeting at RHS Wisley (August), and four days exploring ferns in North Wales (September). Indoor meetings include the Spring Meeting and AGM at the Natural History Museum (April) with several talks on the work of BPS and our annual photographic competition, and a Chromosome Workshop at RBG Edinburgh (July). There will also be five other events! The first, in May, will be a stand at the prestigious Chelsea Flower Show, the next a stand at the Plant Societies weekend at RHS Wisley in June, and in July, again at Wisley, we will be holding a 125th anniversary display. In August we will again be at Southport Flower Show, and in September the World Museum Liverpool will host a 'Ferns and Fossils' event. The celebrations will end with the Autumn Meeting at RHS Harlow Carr in November and will feature several prominent speakers talking about the future of pteridology.

As always, the success of the meetings is dependent on the leaders, who voluntarily give up their time and effort. This is no mean feat, but the rewards are well worth it. If you fancy

organising a meeting, please do let one of us know. You won't be going it alone, as we always allocate a subcommittee member as a liaison point for each meeting. Even if you don't fancy leading, please do let us know if there are any places that you would like to visit and study ferns.

Finally, I would endorse the fine work that Regional Group Organisers do in arranging trips 'on your doorstep'. Even if you are visiting an area on holiday, it is worth checking the BPS website or contacting the Regional Organiser to see if there's a meeting you can join.

CONSERVATION OFFICER – Fred Rumsey

2015 was a quieter year after the publication of the England Red-list in 2014. The Society became a signatory to the lobbying document *Response for Nature* (www.rspb.org.uk/forprofessionals/policy/responsefornature/), which sets out some of the key actions that we see as necessary for Government to include as part of its 25-year biodiversity plan, and follows on from the 2013 *State of Nature* report, which set out the state of our wildlife.

My work on the conservation of *Dryopteris cristata* continued, funded by Natural England under its Species Recovery Programme. A small-scale experimental re-introduction is taking place at Wybunbury Bog NNR in Cheshire, to help us understand more about the species' reproductive biology and ecology and the factors responsible for the species' continuing contraction of range. Anecdotal evidence suggests that *D. cristata* may well have persisted in Kent into the 1980s and it is hoped that a detailed investigation of the Dungeness area where it was known can be performed in 2016.

The Society's field meetings in Guernsey and North Wales allowed the opportunity to record and extend monitoring of some of our rarest and most threatened species and hybrids. I hope to complete the survey of *Isoetes histrix* in Guernsey in 2016, with the able assistance of George Garnett. This will complement the survey work already accomplished on the Lizard, Cornwall over the last few years and reported in the Society's publications.

Work continues on the taxonomy of cryptic complexes in the genera *Cystopteris* and *Huperzia* in the British Isles, with publications planned. Both genera contain taxa that have been overlooked and which are potentially of conservation concern. I would particularly welcome material of the latter so that I can assess spore and gemma characters on a wider range of material. Currently unpublished work by Weston Testo and others in North America is helping to elucidate the diversity present in boreal regions there, with particular taxonomic implications for us.

RECORDING OFFICER – Fred Rumsey

As in previous years, I'm glad to welcome this opportunity to thank all members who have sent records to me and their local BSBI recorders. The push to get good comprehensive coverage for the BSBI Atlas 2020 continues apace and our records are always very welcome. I am in discussion with the BSBI Atlas team, looking towards the use of the fern data gathered and its publication as a separate volume as was done previously, but this time in partnership.

Work is progressing to improve access and functionality of the interface enabling record data held by the Biological Records Centre (BRC) to be interrogated online, as the current portal, the National Biodiversity Network (NBN) Gateway, is somewhat unsatisfactory. This is being driven partly through demands from the devolved administrations, but importantly there will be one central database, with different user interface options depending on where the data are accessed from, e.g. the Atlas of Living Scotland will simply be an access portal to exclusively Scottish records within the UK-wide database. Work on Atlases for Northern Ireland and Wales is progressing, and funding is also being secured for an English Atlas. All of these databases will combine to create a UK Wildlife

Portal, or an Atlas of Living UK, which will essentially be a better and more user-friendly version of the NBN Gateway. With new data licences agreed, there will be increased transparency over what each record can and can't be used for.

I hope that in 2016 more members can be encouraged to take part in our *Pilularia* survey. A big thank you to all who have requested information on their local sites and who have expressed a desire to record, and particularly to Andrew Leonard for driving things along in the species' New Forest hotspot. I'm looking forward to seeing the data gathered. Co-incidentally, Pondlife also set up a detailed pillwort survey – our volunteers meeting at one New Forest site! I'm now working to try to co-ordinate and not replicate activities and seeing how we can best work together and disseminate our joint results.

Interesting finds continue to be made of alien taxa, mostly obvious escapes from cultivation but some in rather remote places 'far from any house'. Diligent recording by Helena Crouch in Somerset continues to turn up interesting records – this year a single *Polystichum polyblepharum* was found on a remote Mendip woodland ride. First found on London walls but subsequently also seen in a wooded valley in Jersey, this may be a species that will turn up more frequently in future. Other polystichums, such as *P. munitum*, and the related cyrtomiums form the majority of alien fern records but many other taxa may also be found. Please keep records of all these aliens coming, as it is so important to keep track of these new arrivals.

PUBLICATIONS SECRETARY – Martin Rickard

Our three main journal editors, Alison Paul (*Bulletin*), Alec Greening (*Pteridologist*) and Mary Gibby with the help of the international support team (*Fern Gazette*) have all produced excellent copy over the past year. Last year I signalled that Mary Gibby wished to stand down as Editor of the *Fern Gazette*, very happily I can report that she has agreed to delay her retirement for the time being. Each Editor reports separately below.

There is also a lot of activity with Special Publications. One new issue was launched this year and is selling well, *The Jones nature prints* by Michael Hayward. Order your copy now! Three issues that are out of print are being reprinted and revised at the same time. These are *Some taxa within the Dryopteris affinis complex, a field guide*, *Fern names and their meanings* and *Polystichum cultivars*. In addition, the new *Polypodium* cultivar account is nearing completion, but I am not progressing as quickly as I had hoped! Further down the pipeline, Michael Hayward is in the early stages of producing an account of fern specimen books. This promises to be a very significant contribution to our knowledge of just what was produced. I can't wait!

Not directly Society publications of course, but several members have had material published in prominent journals, notably Tim Pyner in *The Plantsman* and Patricia Riehl in *Gardens Illustrated*.

***FERN GAZETTE* EDITOR-IN-CHIEF – Mary Gibby**

The *Fern Gazette* reached Volume 20 in 2015, with the first part appearing in January, but unfortunately unavoidable problems in the autumn meant that the second part was published just before Christmas. For 2016 we hope to keep to the schedule of spring and autumn for the publication dates. The subject of papers published was fairly diverse, and again we were able to publish a review article, this time by Keller and Prance, commissioned as usual by Adrian Dyer and Bridget Laue. Many members have said how much they enjoy these review articles, and we hope to continue their inclusion.

I am enormously grateful to Andrew Leonard for his work in preparing the *Gazette* for publication, and for pushing forward the addition of colour plates. Thanks also to the many reviewers and the editorial board – you all help to make my job as Editor much easier.

PTERIDOLOGIST EDITOR – Alec Greening

The 2015 edition of the *Pteridologist* turned out to be the largest issue to date. With 100 pages, including the cover, packed with articles ranging from the humorous to the informative, it certainly appealed to many members. The feedback was very encouraging and I would like to thank all the members who took the time to applaud my efforts.

The Tree Fern Newsletter made a very welcome return due to the efforts of Mark Longley and it is hoped that this will continue. New authors appeared, which is very promising, and many established contributors provided more than one article. The cultivar theme was appreciated by many. I certainly enjoyed tracking down some unusual ferns with Julian Reed.

The issue went in the post by the end of June despite my absence for most of March and April, which is the normal time for the majority of editing and proof reading. This was only possible because many authors contributed articles well before the cut-off date and gave me plenty of time to organise the issue before my big trip 'down under'.

My proof readers worked hard for this issue. Thanks to Roger Amos, Chris Evans and Brian Ottway for all your efforts, it was much appreciated.

I hope you all enjoy the 2016 issue, it's looking very promising.

BULLETIN EDITOR – Alison Paul

The 2015 *Bulletin* is slightly smaller (92 pages), mainly due to there not being a long overseas meeting report, but it is still indicative of the good number and wide range of the Society's activities. The *Bulletin* provides an archive record of those events, and it is pleasing to know that some members do use past issues to research fern outings. I would like to thank for their contributions the numerous members who have been persuaded (or even offered!) to report on our meetings and who have contributed photographs. Why not send in yours next year?

WEBSITE CO-ORDINATOR – Liz Evans

Throughout 2015 the Web Team continued to develop and improve the website, respond to queries, provide members (and non-members) with log-in details for the Forum, set a few brave people up with their own blogs, and generally keep an eye on the day-to-day running of the website. After the initial organisational role of helping to make the new website a reality, Frank McGavigan sadly decided to stand down from the team, leaving Liz Evans, Roger Golding, Bridget Laue and Andrew Leonard. We are, however, hoping soon to welcome a new member to the team in place of Frank. Andrew Leonard continues his sterling work on the technical side of keeping the website running smoothly. In 2015 the website received over 14,000 unique visitors from all around the world.

As Website Co-ordinator, my role has been to liaise between the Web Team and the Committee, which I have continued to do. I also help to keep the Events diary up to date. I contributed an article on Social Media and the new website to the 2015 *Pteridologist*, and I have been very encouraged by our increasing popularity on our Social Media channels – we now have over 1,000 followers on Twitter, and at the time of writing are getting close to 500 people having 'liked' Fern World on Facebook. Thanks again to Ashley Basil for maintaining our Flickr photographic site, and to Razvan Chisu for looking after the BPS Instagram mobile photo-sharing account.

In 2016, the Society's 125th Anniversary Year, we will be looking to promote the Society's history across the website and all our Social Media channels, together with the anniversary events and our stand at the prestigious RHS Chelsea Flower Show.

EDUCATION OFFICER – Peter Blake

In 2015 the members of the Education Subcommittee were involved in activities such as shows, guided walks, creation of an educational garden and revision of educational literature.

The educational leaflets were reviewed in early 2015 and the *Cultivation of ferns* leaflet was revised and reprinted. It was felt that there needed to be a leaflet on growing ferns under glass and Peter Blake produced a first draft of that. As the BPS is to exhibit at the 2016 RHS Chelsea Flower Show, customised leaflets bearing the Society logo and marked '125th Anniversary' are to be produced in addition to the standard leaflets. These will cover the culture of ferns in moist conditions, in dry conditions and indoors.

The BPS was approached by Rachel Bailey, a student on the RBGE Garden Design course, for support for a first-time exhibit of ferns at 'Gardening Scotland' in May 2015. The BPS made a grant of £500 towards the exhibit and Rachel informed us that it won a silver-gilt medal and 'Best new exhibitor in Show' medal.

The Education group were also asked to provide a three-day exhibit at 'All About Plants', held at RHS Wisley 19th to 21st June, which was successful and is to be repeated 18th to 19th June 2016 as 'The Plant Societies' Show'. The group also organised a stand at the Big Nature Day at the Natural History Museum, South Kensington, in May.

The group did a three-day stint in August at the National Trust property Nymans in West Sussex. It was successful on the first day, with a party from the Eltham section of the University of the Third Age organised by Jennifer Ide, but had disappointing attendance by the general public on the other two days. If it is repeated in 2016 it would be on Saturday 13th August for one day only. Alison Evans also conducted a guided walk with an educational aim at Foxglove Covert Festival of Nature in North Yorkshire on 19th July. There was a fern study day at Benmore led by Heather McHaffie.

Alison Evans was asked to advise on setting-up ferneries and outdoor classrooms at Copperas Fields, Droylsden, Manchester, and at the Broad Mills and Lymefield sites in Broadbottom, Cheshire. John Grue has also been involved, and we hope to be able to run fern workshops at these locations in future. Robert Crawford and Alison Evans continued to maintain the fern garden at FSC Blencathra in Cumbria, with help from other members.

Members of the Scotland Group presented a display at the BioBlitz held at Dawyck in July (read more about this in the Scotland Group's report). Both members of the public and of other specialist groups were given information about ferns.

At the November AGM of the BSBI/Botanical Society of Scotland, the BPS Scotland Group participated with a display about ferns and the Society. John Edgington presented a poster on potential subspecies of *Huperzia selago* and *Lycopodium clavatum* found in the Scottish Highlands.

Frank McGavigan stepped down from the Education Subcommittee after several years' service, due to health issues. The group is very grateful to Frank for his drive, inspiration and practical good sense. We will miss him. We would like to welcome our new member Liza Downie.

PUBLICITY & MARKETING OFFICER – post vacant; report by Liz Evans

I continued to look after the BPS Social Media channels, which I initially set up as a way of publicising the BPS, and will continue to do this as part of the Web Team. However, I decided to step down in 2015 as Publicity and Marketing Officer as I felt that someone with more contacts and a better knowledge of traditional media such as print and local news and radio would be better suited to this position. A job description for the role (which I was provided with when I agreed to take it on) is available on request, and if anyone feels that they have the relevant experience for this post, or would like to have a go, please contact Publicity@eBPS.org.uk.

COMMITTEE APPOINTEES' REPORTS

SPORE EXCHANGE ORGANISERS – Brian & Sue Dockerill

These statistics give an overview of the main Spore Exchange for 2015.

	2013	2014	2015
No. taxa in list	374	441	503
No. orders received	99	115	98
No. packets supplied	1,548	2,015	1,703
No. first choices supplied (%)	1,276 (82%)	1,795 (89%)	1,526 (90%)
No. donors	35	31	32

The number of orders was down on 2014, but the length of the list and the numbers of donors both increased and overall the Exchange is healthy.

Again we supplied spores to the Seed Exchange of The Hardy Plant Society and all the 150 packets were ordered, an increase on 2014.

On the short viability exchange, asking for specific requests in 2014 resulted in a very limited response. For 2015 we offered frozen spores as part of the main list, but feedback from these suggested that viability was low. However, it demonstrated that these spores could be popular if a convenient way could be found to supply them. This year we also trialled using e-mail notification to a limited list of members (those who ordered or donated short viability spores) when such spores were received and this worked quite well. We plan to build on this for future years, while still retaining a facility for specific requests as before.

As always, we are very grateful to the spore donors, without whom there would be no Exchange. If anyone is interested in becoming a donor, we are very happy to offer advice or they can look on the website for help.

PLANT EXCHANGE ORGANISER – Jonathan Crowe

Donor forms were distributed with the spring mailing. The Plant Exchange List was compiled and distributed at the start of June 2015. Eight members offered plants, a drop of two on 2014. In all there were 77 taxa on offer, half as many as in 2014 but 40% up on 2013. The list was distributed to 21 members. Nine members listed plants that they were seeking.

This was my final year organising the scheme, nine years after I took over from Graham Ackers. I am very pleased to report that Brian and Sue Dockerill have volunteered to take it on as well as the Spore Exchange, an arrangement that should benefit both schemes.

BOOKSALES ORGANISER – Frank Katzer

2015 was a relatively busy year for BPS Booksales, including sales of over £1,600 worth of books and I also managed to stock up by purchasing new books. The highlight was the purchase of Frank Tingey's book collection for the Society. As a result, the Booksales balance stayed at almost the same level as at the beginning of the year. My intention is to purchase more new books to increase stock levels further during 2016. I am always very happy to receive suggestions for books to purchase, so I look forward to hearing about new books that are of interest.

As usual, BPS Booksales will always welcome bequests of books or offers to purchase either individual books or whole book collections. The prices offered cannot be equivalent to internet prices but please keep in mind that if you sell books to dealers, they will not offer you sales prices either. To contact me please use my work e-mail: Frank.Katzer@moredun.ac.uk or the Booksales e-mail: Booksales@eBPS.org.uk. I can also be contacted by post: Frank Katzer, Highfield House, Muirburn, Skirling ML12 6HL, Scotland or by phone 0044 (0)1899 860307.

BACK NUMBERS OF JOURNALS ORGANISER & SPECIAL PUBLICATIONS SALES – Pat Acock

New Special Publications are always welcome, and Michael Hayward's *The Jones nature prints* (Special Publication 14) sold especially well and is down to the last 30 copies. John Edgington's *Who found our ferns?* (S.P. 12) is still available and is a valuable reference for anyone interested in British Ferns. Ken Trewren's *Some taxa within the Dryopteris affinis complex* (S.P. 13), edited and expanded by Anthony Pigott and Alison Evans, sold out very quickly, with many people disappointed. Expect a second edition.

Michael Hayward's carefully cleaned and set out CD ROM of the first nine volumes of the *British Fern Gazette* (S.P. 11) allowed me to cull all the remaining facsimiles in my loft. I also took the opportunity to reduce holdings of *The Fern Gazette* from Volume 13 to the present. I also had to reduce the *Bulletin* issues to a manageable level. The *Pteridologist* still proved to be our most popular journal for back numbers as well as people I meet throughout the world commenting on how much they appreciate it. Few of the recently completed Volume 5 remain, and with the exception of Volume 3 we have few complete early volumes. Now would be a good time to add to your collection, as complete second-hand volumes seldom turn up these days!

A bargain pack can be purchased for £7 including postage. The full list is on the website or available from Pat Acock at BackNumbers@eBPS.org.uk. Treat yourself!

MERCHANDISE ORGANISERS – Bryan & Gill Smith

Merchandise sales were considerably less in 2015 (around £550) compared with 2014 (approximately £1,000). There were fewer mail orders in 2015, with only twelve compared to around 30 in 2014. Many of the mail orders were made through the BPS website. Unusually, we had no orders from overseas.

Again we produced the 2016 BPS calendar early in the year to try and improve on sales, and it was ready for the AGM. This paid off and there were even more selling opportunities throughout the year. The calendar contained some stunning images from the Photographic Competition held at the 2014 AGM and proved a popular seller. The 2017 calendar should be available in time for the 2016 AGM and will contain more stunning images, this time from the Photographic Competition at the 2015 AGM. Though we added no new items this year, we had to re-stock on the *What's that fern?* guide. This low cost, colour field guide to 19 British ferns continued to be a good seller, as did the hand lens and the FSC/BPS *Key to common ferns*.

As in previous years, the Spring and Autumn Indoor Meetings were good for face-to-face sales. These opportunities saved members postage and packing costs, as did the local regional meetings and national meetings that we attended. Colleagues in the north sold merchandise at Southport Flower Show, and at the AGM of the North-West Regional Group. Further details of the accounts can be found in the Merchandise section of the Treasurer's report.

We updated the merchandise list in June and again in October to take account of changes in stock. The latest list (October 2015) was distributed with the Autumn Mailing, and can also be found on the BPS website. New order are sent out whenever we fulfil mail orders. The list currently boasts a range of well over 20 items and a total of 50 individual products, but we always welcome ideas for any new items. As 2016 is our 125th Anniversary year, we plan to produce some celebratory merchandise, which will be unveiled at the AGM.

HORTICULTURAL INFORMATION ADVISER – Matt Busby

During the year I received no queries concerning any aspect of fern identification or cultivation. Certainly there is a wealth of information in the numerous books and magazines

available to the gardening public, as well as on the Internet. We are also fortunate in belonging to a Society that has so much expert information in both its publications and web pages. In spite of enjoying a quiet year, I am happy to fill this post until the Committee consider that I am surplus to requirements.

ARCHIVIST – Michael Hayward

In March 2015 the Society archive was moved, in two very full cars, from its home in Manchester Museum to the Herbarium of the Botany Department of Liverpool's World Museum. It is now housed on modern moveable shelving in a shared storeroom with ample bench space for working on the material. The agreement between the BPS and the Museum is for an initial 15-year period. The staff of the Botany Department are most helpful in providing access to the archive. The material is housed in around 40 foolscap box files and 30 plastic crates. The move provided an opportunity to replace damaged and over-full crates and to redistribute some of the material in the box files. I took over the responsibilities of Society Archivist from Matt Busby at the time the material was moved.

My aim over the next few years is to make the material in the archive more accessible to members and to genuine researchers. To this end, the archive catalogue was moved from its original text file to a database, written in Microsoft Access, which immediately provided improved facilities for searching and report generation. The boxes are now being systematically re-catalogued with the addition of key words to improve searching and some re-ordering of the material. A long-term aim for the archive is to create digital images of all suitable material, and a start has been made on scanning all of the photographic prints. Some of the images will be used on the BPS website (see under 'History of the BPS').

The large volume of early correspondence in the archive presents a much greater challenge in making it more accessible. Much of this material is catalogued simply as 'a bundle of correspondence from A to B'. Digitisation of one sample box shows that many letters are not fully dated and multi-page letters have become dispersed within a bundle. The correspondence between Colonel Jones and Stansfield (54 letters) is now fully digitised and available as pdf files. Other correspondence will be digitised as and when requests are received, until the systematic scanning can be completed. One obvious deficit at the moment is the lack of any systematic collection of photographs of contemporary members!

As well as photographs and correspondence, the archive contains an almost complete set of the Society's journals and other publications, minute books and committee notes relevant to the development and governance of the Society. There are many accounts and photographs of Society meetings and symposia, and a variety of ferny artefacts.

A small number of requests for information were received during the year, including for material relevant to the coming anniversary, an enquiry about old fern catalogues, and information on Alexander Cowan for a student at RBGE. All requests are welcome. It takes only a moment to determine what relevant material there may be in the archive.

We are particularly grateful to Manchester Museum for housing the BPS archive for six years, and to the staff at World Museum Liverpool for providing such excellent new facilities.

CULTIVAR REGISTRATION SUBCOMMITTEE – Martin Rickard

The idea of producing cultivar registers is a relatively new departure for the Society. The end product, the register, has to be technically correct and precise. That is not to say revisions cannot be produced, but obviously mistakes have to be kept to a minimum. Working within this concept I am very pleased to be able to report that Roger Golding is making good progress on the register for *Polypodium*. The group set up to look at the production of a register of *Asplenium scolopendrium* cultivars is moving forwards, but, as with the *Polypodium* project, it is expected that it will take several years to produce the final document.

OBITUARIES

John Raymond Woodhams

1940 – 2015

John was one of the most pleasant and considerate people you could wish to meet. Nothing was ever too much trouble and he was great company.

I met him after he took over the fernery at Kew Gardens after the retirement of Bert Bruty in 1970. Bert had a wonderful enthusiasm for ferns and John carried that forward magnificently for the next 25 years or so.

John was born in Wiltshire in 1940, the son of a Head Gardener, so his future was possibly pre-determined! He followed a horticultural career, progressing from Weymouth Parks Department to Kew, where he joined the Kew Horticultural Course in 1962 and stayed on after its completion in 1964. His potential was recognised very early and he was given the responsibility of running the very important horticultural fern section only six years later.

photo: RBG Kew, courtesy Joan Woodhams

John Woodhams

In those days the BPS had an annual 'Kew Meeting'. This entailed a tour of the three main public fern houses and, the highlight, a tour of the back-up sections not open to the public. These houses in the Lower Nursery were magnificently stocked with all sorts of fern treasures, but were not really designed for large groups to tour. Nevertheless John was up to the job and everyone went home with their minds full of the magic of the day. Jimmy Dyce wrote in the 1971 *Newsletter*:

'...Bert Bruty has now retired from his post as Foreman-in-charge of the (fern) houses, and has been succeeded by John Woodhams who is young and enthusiastically keen on the ferns in his charge. Along with Professor Holttum, he led us round and showed himself already so familiar with the many ferns that we feel Bert's mantle has fallen on worthy shoulders.'

Jimmy was right.

In 1972 John was invited onto the Society's committee, the year after he joined, and he subsequently served several terms and was later a Vice-President, giving a total of 22 years' service. I well remember the discussion about potentially holding a conference in 2001. But what could be its theme? John came up immediately with the suggestion that fern conservation might fill the bill. This perfect idea was quickly taken up by the Society, and the conference, held at the University of Surrey in Guildford, turned out to be a great success, all thanks to John's initial proposal. He spoke at the Society's Centenary Symposium in 1991, and gave delegates a tour of the Princess of Wales Conservatory.

John did not often come on field meetings but he regularly attended meetings in London, almost always with his wife Joan. Joan was a marvel! With others she regularly prepared

the tea and cakes so essential at our meetings. John was attentive while at the same time always willingly sharing his knowledge.

For many years John was teamed with Professor Holttum and as the Professor became successively deafer John became his ears, acting as his 'interpreter'. They were quite a team. However, John was not always pleased with the Professor! On one occasion I had laid out a lot of herbarium specimens of polypod cultivars in the Herbarium at the Natural History Museum. The Professor was interested and asked if I'd like a plant of *Polypodium* × *schneideri* (the hybrid between *P. vulgare* 'Elegantissimum' and *Phlebodium aureum*). I replied with an enthusiastic 'Yes please'. The Professor immediately shouted across the crowded room to John telling him I wanted a plant. That was the only time I can ever remember seeing John look even slightly cross! He dutifully eventually gave me half the plant, which slowly died, as did the half at Kew. John was quite right, the plant should not have been disturbed.

John and Joan married in 1966 and moved to Kingston, curiously only about one mile away from my childhood home. I soon moved away, and besides, my embryonic interest in ferns in 1965 was far too pedestrian to mix with Kew professionals. Living in Kingston, however, turned out to be really rather convenient many years later. I had a fern nursery during the 1990s and 2000s and always exhibited at the Hampton Court Flower Show. I suggested to John and Joan that they might enjoy helping, and they jumped at the suggestion. Can you imagine a small nursery having one of the world's leading experts on their stand to answer any queries from the public? Both John and Joan were a great success – and fun to work with. One day Barry Thomas was also helping out and John got involved with a lady who was interested in buying a tree fern. The lady kept him engaged for ages while Barry and I were largely idle. John did not mind at all seeing us idling while he was working! I think the lady bought the tree fern too! On another occasion I had David Howard, then His Royal Highness Prince Charles's Head Gardener at Highgrove, helping alongside John and Joan. What a pair to have helping on your stand for no fee – just free entry to the show. Sales were good!

Joan ran an antiques stall in Kingston Market and John always helped with picture framing and mending furniture. Sadly I never was able to visit them but Joan always assured me she had no fern-themed treasures that I would want! She did not ask me to help man her stall; I think I would have been a disaster!

Very sadly, over the last years of his life John became increasingly ill and dependant on first inhalers and then latterly twenty-four hour oxygen. He still came to most committee meetings but to fewer other meetings, even in London. The last major outing I remember that he and Joan attended was the Kew meeting in 2011; as ever it was wonderful to have his experience on hand.

John's career at Kew was cut short by his illness and he took early retirement in 1995. During his 33 years at the gardens his achievements were much appreciated and recognised by the Kew management. He was awarded the prestigious Kew Medal in 1980 for developing, amongst other things, the tropical fern collections, and was promoted to Assistant Curator of the Tropical Department in 1982. He was much involved with the planning of the Princess of Wales Conservatory and met the Princess during the opening ceremony. He was very involved with the Kew Guild and was Vice-President in 1992/93. The BPS recognised John's contributions over the years by making him an Honorary Member in 2009. He had earlier been asked if he would allow himself to be put forward as a potential BPS President but he declined with typical modesty as he felt his health issues would let him down.

John and Joan were a perfect couple. I'm sure all members of the BPS who had the pleasure of knowing John will join me in extending my deepest sympathies to Joan for her dreadful loss.

Martin Rickard

See Honorary Membership citation for John Woodhams in the 2009 BPS Bulletin *for more information about his contributions to the BPS and to pteridology.*

Marjorie Garstang

6 March 1932 – 14 November 2012

Marjorie and Jack Garstang lived in a caravan at Penny Bridge in Cumbria while they built the lovely bungalow with which their friends will always associate them. Marjorie loved gardening and was particularly drawn to ferns, which flourished in the area. By good fortune, she regularly visited Waithman's Nursery in Silverdale in search of more, and succumbed to Reggie Kaye's enthusiasm. He encouraged her and Jack to learn more while they built up a collection of choice varieties, which enhanced their home.

Marjorie was a teacher – she taught the infants in Penny Bridge, eventually becoming Assistant Head – and tackled things methodically. She realised that the polysyllabic names of ferns represented a significant hill to climb for most novices and she tackled the problem by taking herself (and Jack) to evening classes in Latin, eventually going to Lancaster for an O-level examination, which they both passed.

She was the motive force in re-establishing the North-West Group of the BPS in 1993, just two years after joining the Society. By sheer force of enthusiasm, she managed to gather enough like-minded fern lovers to build up a very active local branch remarkably quickly. She and, particularly, Jack had a strong aversion to formal committees, which they branded as 'talking shops' but much was achieved through leading by example. The fledgling group had remarkable success at the Holker Garden Festival, winning major prizes for theme-based stands promoting our interest in ferns.

Those of us who were carried along by this flurry of creative effort will always remember with affection the small voice of the small lady who inspired and, most importantly, sustained it.

R. Melville Thomson

Mrs Brenda Miriam Smith

1931 – 2016

It was with much shock and sadness that we learned of the sudden death of Brenda Smith on the 16th January. Having joined the Society in 1975, Brenda had many interests, including embroidery, walking, table tennis and visiting National Trust Properties, but her real passion was gardening. In addition to all this, Brenda still found the time and energy to achieve an Open University Bachelor of Arts Degree in 2014. At the service of remembrance held at the Shirley Methodist Church on the 9th February, the Minister described Brenda most accurately as 'dynamo' and a 'bundle of energy'.

But it will be through Brenda and Ray's activities with our Society that she will be most fondly remembered. In addition to their attendance at both field and indoor meetings, Brenda gave Ray full support when he took over from Rosemary Hibbs the organisation of the Society's Plant Exchange Scheme from 1993 to 2001. I was especially grateful for all the years of unstinting support they gave me in manning the Society's stand at Southport Flower Show, and Brenda never failed to fortify us with one of her splendid fruit cakes.

Our most sincere condolences go to Brenda's surviving sister Audrey, to husband Ray, daughter Melanie and her partner Andrew Kyte, son Rod, daughter-in-law Annie and grandchildren Matthew, Edmond and Jessica.

Matt Busby

Jamie Taggart

1972 – 2013

It is particularly sad to write about a BPS member who was a very good friend and only 41 at the time of his death. As reported previously (*BPS Bulletin* 7(6): 516, 2013), Jamie Taggart went missing in early October 2013 while botanising on his own in the mountains close to the town of Sa Pa in North Vietnam near the Chinese border. His remains were only discovered two years later in December 2015. The exact circumstances are not yet disclosed but it seems likely that Jamie may simply have slipped and fallen, fatally. He had

visited the region a few years previously with a botanical tour group and had his appetite stimulated for further exploration, off-trail and solo. He was an adventurous, determined and fit young man. Unmarried.

Jamie Taggart came from a botanical family. His father, Dr Jim Taggart, gained a PhD in Botany from Glasgow University and was a Lecturer in that subject at Trinity College, Dublin. His mother, Jill Mary, studied at the Waterperry School of Horticulture near Oxford. In 1971 Jim and Jill bought a Victorian house and garden on the shore of Loch Long, in the village of Cove near Helensburgh. Down the years the gardens were progressively and imaginatively developed by Jim, and later Jamie, into the present Linn Botanic Gardens, a place warmed by the Gulf Stream. A lyrical, beautifully illustrated book about Linn and its two developers was published recently by the artist Alison Turnbull and writer Philip Hoare as *Another green world, Linn Botanic Gardens, encounters with a Scottish Arcadia* (Art Books Publishing Ltd, London, pp. 173, 2015).

photo: A.C. Wardlaw

Jamie Taggart (1972-2013)

Jamie was born on 19th January 1972 and registered as James Henry Ker Taggart. After schooling at Hermitage Academy in Helensburgh, he spent two years as a junior gardener at Benmore Botanic Gardens, near Dunoon. To get professional qualifications, he enrolled at the Scottish Agricultural College, Auchencruive, and finished with an Honours BSc in Botany from Glasgow University. Thereafter, Jamie's adult life was spent working with his father at Linn Botanic Gardens, assembling a diverse collection of conifers, ferns, rhododendrons and Southern Hemisphere exotics. It suited Jamie also to have a local part-time job as a Retained Firefighter. One of Jamie's special enthusiasms was displaying ferns in profusion and in harmony with the steep, rocky terrain and natural water features at Linn. He compiled a *Plant index for Linn Botanic Gardens*, now included as an insert in Turnbull and Hoare. It records the approximately 3,000 plant taxa growing at Linn.

Jamie joined the BPS in 2001. He wrote a splendid article in *Pteridologist* (5(2): 92-94, 2009) on *Blechnum palmiforme*, the hardy tree fern on remote Gough Island, in the South Atlantic. With official permission he obtained spores and grew large numbers of now-maturing plants. With its eventual stout trunk and large leathery evergreen fronds, *B. palmiforme* may well become a striking 'architectural' plant in those gardens where hardy tree ferns are cherished. Jamie would be delighted by such an outcome.

Alastair Wardlaw

Oliver Wolf Sacks

1933 – 2015

It is rare that we write an obituary of a member who is far better known outside the world of ferns. Inevitably numerous obituaries of Oliver Sacks have already been written on a far higher plain and in far greater detail than we can contribute here.

My connection with Oliver Sacks started in a most unexpected way. In 1994 I had just had an article published in *The Garden*, the magazine of the Royal Horticultural Society. The article was an attempt to describe my garden and the ferns in it. I was on the point of moving house but I kept getting messages that an American wanted to come over and see my garden! Eventually he phoned when I was in and we arranged a visit just before I moved any of the ferns.

He and his mother turned out to be thoroughly charming. We did the tour of the garden and my wife and I invited them in for a cup of coffee. During conversation Oliver asked me what I did for a living. I replied 'agricultural research', and asked him what he did. Apparently he was a neurologist, which to me was about as interesting as agricultural research! He did add, however, that he'd made a film. So had I, a dreadful amateur thing as a student! But then Oliver dropped the bombshell – his film had featured Robert de Niro and Robin Williams. I have never been a regular cinema-goer but even I had heard of these two! Wow! The film was called 'Awakenings' and was a record of a period of his research.

All the time we were having this conversation my son, then eighteen, was rolling on the floor talking to his friend Matthew on the phone. We heard him say to Matthew, 'Do you know the film 'Awakenings'?' That was all he said but the reply came back 'Yes, fantastic film about Oliver Sacks'. My son replied 'He's sitting in our kitchen now!' You can imagine Oliver's relief that SOMEONE knew who he was. I'm afraid my family was shown up to be rather ignorant!!

The film 'Awakenings' was a true story of one of his experiments back in the 1970s, where he treated people in a zombie state (encephalitis lethargica) with a controversial drug. Amazingly most of his patients regained consciousness and one, played by Robert de Niro, almost fully recovered, renewing contact with his mother after many years in his comatose state. Sadly the drugs stopped working and the comatose state returned permanently. Nevertheless it was a very moving film, which I have since seen twice. I recommend it. Oliver's interest in ferns was not very obvious in 'Awakenings' but there was a sequence in the New York Botanical Garden where he sat for a while on an American version of the Coalbrookdale 'Fern and blackberry' garden seat!

Oliver joined our Society in 1994 and remained a member until 2004. He had already been a long-term member of the American Fern Society, with John Mickel and Robbin Moran prominent among his friends. In early 2000 he joined one of John Mickel's tours to Oaxaca in Mexico. It was obviously a wonderful tour, so much so, that Oliver wrote a book about it – *Oaxaca journal*. Not a fern book in the strictest sense, but an interesting insight into the peripheral features of a John Mickel tour.

Over the last forty years or so he became well known in the UK for various media appearances. In 1974 his medical research was the subject of the first programme in the Discovery series on BBC television. Much later he did a six-part series on obscure medical conditions in isolated communities, often thought to be caused by the local environment. I also heard him on UK radio on the perennially popular 'Desert Island Discs'. As well as *Awakenings* and *Oaxaca journal*, several of Oliver's other books became best sellers, including *The Man who mistook his wife for a hat*, *Seeing voices* and *Uncle Tungsten*. The interest in *Uncle Tungsten* spoilt the chance of me meeting up with him again in 2001 – he was a regular attendee at meetings of the New York Fern Chapter, but on that occasion he was away publicising the book!

Oliver was born in England and lived here as a young man. He went through university in Oxford, but then moved to the USA and settled in New York. Nevertheless he was a frequent visitor to Britain – as evidenced by his visit to my garden. He had not come over especially, he was off to the opera in London that evening!

Sadly, so far as I know he never attended a BPS meeting despite being a member for ten years.

Martin Rickard

IN MEMORIAM

We were also sorry to learn of the death of the following (date joined BPS in brackets):

Mr Simon Martin of Frodsham, Cheshire (1998)

Mr Barry Smith of Clitheroe, Lancs (2010)

MEMBERSHIP LIST: ADDITIONS & AMENDMENTS

NEW MEMBERS

** new members 2015, ** new members 2016, # members rejoined 2015, ## members rejoined 2016*

Atkinson, Miss W.J., 6 Carno Street, Liverpool, Merseyside, L15 4LB.
wendy.atkinson@liverpoolmuseums.org.uk
* Bailey, Ms R., Ardenbrae, Glenoran Road, Rhu, Argyll and Bute G84 8JU, Scotland
** Baker, Mr P.N., 4 River Head, Driffield, East Yorks. YO25 6NY
* Barnicoat, Mr T., 2 Tanjil Court, Dandenong North, Victoria 3175, Australia.
budmanoz@hotmail.com
* Brokenbrow, Mr J., Jolesfield Grange, Jolesfield, Partridge Green, West Sussex RH13 8JT.
jonathan.1992@hotmail.co.uk
Bryant, Dr J.B., 36 St John's Avenue, Burgess Hill, West Sussex RH15 8HH.
jonathan.bryant1@googlemail.com
* Burgess, Mr E.S., Turnpike Cottage, Blue Vein, Box, Corsham, Wilts. SN13 8DQ
* Byrne, Mr K., K & C Byrne Partnership, Homefield, Isle of Colonsay, Argyll PA61 7YR,
Scotland. byrne@colonsay.org.uk
* Carpantier, Mr K.-P., Esbornerstrasse 288, Wetter, NRW 58300, Germany. peter@carpweb.de
* Cavin, Mr C., 3976 Azalea Lane, Sebastopol, CA 95472, USA. curtis_cavin@att.net
# Cicuzza, Dr D., Xishuangbanna Trop. Bot. Garden, Center for Integrative Conservation,
Xishuangbanna Menglun, Yunnan 666303, China. dcicuzza@gmail.com
* Cummings, Ms J., 88 Elm Park Grove, Rochdale, Lancs. OL12 7JT.
jane.cummings10@tiscali.co.uk
* Deegan, Ms J., 16 Harvey Goodwin Avenue, Cambridge, Cambs. CB4 3EU.
jendeegan@gmail.com
* Dennison, Ms J., 21 Caversham Road, Kingston-upon-Thames, Surrey KT1 2PU
* Destombes, Mr J.-L. & Mrs A. Les Combettes, 26420 Saint Julien-en-Vercors, France
** Dillard, Ms R., 9414 Meadowbrook Avenue, Philadelphia, Pennsylvania 19118, USA.
rdillard@upenn.edu
* Dixon, Ms D., 74 West Street, Penryn, Cornwall TR10 8EU
** Dubreuil, Mr O., 124 Rue Haute-Baive, Liernu, Province de Namur 5310, Belgium.
dubreuildepireux@gmail.com
* Englisch, Mr J., Blumenstraße 6, 94333 Geiselhöring, Bavaria Germany. cj.englisch@posteo.de
Ensoll, Mr A.J., 105/2f3 Granton Road, Edinburgh EH5 3NJ, Midlothian, Scotland.
ajens50@hotmail.com
* Fjordvald, Mr H., Fosevej 25, Enslev, Gjerlev, xxx 8983, Denmark.
h.fjordvald.mosely@gmail.com
** Forrest, Mr R. & Mrs C., The Little Haven, 34 Chobham Road, Ottershaw, Chertsey, Surrey
KT16 0NN
** Gaillard, Ms A.-M., Les Jardins d'écoute s'il pleut, 50 rue de la Braud, 85200 Saint Michel le
Cloucq, Vendée, France. annemarie@ecoutesilpleut.pro
* Gaynor, Mr A., 27 Queens Road, Alton, Hants. GU34 1JG
* Green, Mr M., 9 Harwood Close, Arnold, Notts. NG5 8AB
# Griggs, Miss E., 88 Horatio St., Apt. 2D, New York, 10014-1563, USA. griggse@gmail.com
* Hahn, Mrs R.F., 2115 Penn Ave., Pittsburgh, PA 15222, USA
* Handley, Mr R.G., Brambles, Ashmount Road, Grange-over-Sands, Cumbria LA11 6BX.
tyrcriafol2@waitrose.com
** Harris, Mr R., Folly Brook House, Newcastle on Clun, Craven Arms, Shropshire SY7 8QL.
r.harris@sheffield.ac.uk
* Haslett, Mr M., 12 Strangman Avenue, Thundersley, Benfleet, Essex SS7 1RB.
markecp@btinternet.com
Haufler, Prof. C.H., Dept of Ecology & Evolutionary Botany, Haworth Hall, University of
Kansas, Lawrence, Kansas, 66045-2106, USA. vulgare@ku.edu
** Heckler, Ms N., PO Box 36, Indianola, WA 98342, USA. nancyheckler@comcast.net
* Hill, Mrs J., 6 Wayside Avenue, Harrogate, North Yorks. HG2 8NL
** Hillier-Palmer, Mr K., Rochefort, 8 Hillcrest, Rye, East Sussex TN31 7HP. keith@palmer-
family.me.uk
Horne, Mr K.G., 21 Thomas Street, Walcot, Bath, Avon, BA1 5NN. kghorne.bath@gmail.com
** Hutchinson, Mr J., 127 Mill Street, Great Torrington, Devon EX38 8AW.
jonathanhutchinson87@gmail.com
* James, Mr K.T., 84 Thames Avenue, Guisborough, Cleveland TS14 8AR.
kennyjam@fsmail.net
* Lane, Mr W.S., 6 Bowes Road, Rubery, Birmingham, West Midlands B45 9HL.
wslaneuk@yahoo.co.uk
* Lebsa, Mr J., Hauptstr. 31, Fuchshain, Saxony 04683, Germany. j.lebsa@web.de

Macer, Mr N.J., Cosmos, Church Road, Randwick, Stroud, Glos., GL6 6JQ. info@panglobalplants.com
** Marsden, Mrs J. & Mr D., 2 Oxlands, Station Road, Holme, Carnforth, Lancs. LA6 1RG. jomarsdene@gmail.com
* Matos, Mr F., The New York Botanical Garden, Institute of Systematic Botany, 2900 Southern Blvd., Bronx, NY 10458, USA
* Mazzarese, Ms C., Via XX Settembre 65/b, 90141 Palermo, Italy. v.sanfi@libero.it
* McAlpine, Ms J.S., 26 Chester Avenue, Southport, Merseyside PR9 7ET. janetmcalpine@hotmail.co.uk
# McHenry, Ms M., Department of Plant Biology, University of Vermont, Marsh Life Sciences Bldg, # Burlington, VT 05405-0086, USA. mmchenry@uvm.edu
# Metzgar, Mr J.S., Museum of the North, University of Alaska, 907 Yukon Drive, Fairbanks AK 99775, USA. jsmetzgar@alaska.edu
# Nagalingum, Miss N., Royal Botanic Gardens Sydney, National Herbarium of NSW, Mrs Macquaries Road, Sydney, NSW, 2000, Australia. nsnagalingum@gmail.com
* Nunn, Mr M., 2 Jordans Brook, Totnes, Devon TQ9 5FR
** O'Mahoney, Mr R., 23 Vera Road, Rackheath, Norwich, Norfolk NR13 6QP. robert.omahoney@hotmail.co.uk
* Parsons, Mr D.B., 6226 Old Mill Road NE, Bainbridge Island, WA 98110, USA. kynja@mailbolt.com
** Petersson, Mr M., Televisionsgatan 1A, Västra Frölunda, Västra Götaland 42135, Sweden. mkl.petersson@gmail.com
* Petrenko, H., 52 Raley Street, Barnsley, South Yorks. S70 6LH. haliapetrenko@hotmail.com
* Przydyba, Mr K., Ripple Hall, Station Road, Ripple, Worcs. GL20 6EY. kryprzy@gmail.com
* Ramell, J.L., Clevelands, Eynsford Road, Eynsford, Kent DA4 0BG
* Redmore, Mr D., 10 Royal Cottages, Ashton Road, Lancaster, Lancs. LA1 5AL. davidredmore@hotmail.com
* Reeves, Mr P.A., 3 Evington House, Barracks Square, Macclesfield, Cheshire SK11 8HF. pr@tsuba.co.uk
* Reth, Ms F., 227 Rue Febvotte, Tours, Indre et Loire 37000, France. rainbowchildren@gmail.com
* Rimington, Mr W., 1 Lansdowne Road, Tonbridge, Kent TN9 1JB
* Robinson, Mr C.C., 1 Brook Cottage, Coe Lane, Millington, Cheshire WA14 3QY. chrisbythebrook@aol.com
* Russell, Ms N., 43 Sandport Street, Edinburgh, EH6 6EP, Scotland. nadia.russell707@gmail.com
* Russell, Ms K., 4780 Glen Street, La Mesa, CA 91941-5466, USA.
* Scanes, Miss A., 6 Pollux Gate, Fairhaven, Lytham, Lancs. FY8 1BG. annescanes@gmail.com
* Schoolar, Dr A.I., 53 Learmonth Grove, Edinburgh, EH4 1BX, Scotland
** Seiler, Mr R., P.O. Box 1025, Carson City, NV 89702-1025 USA
* Sheppard, Mr G., 2 Haig Avenue, Coldean, Brighton, Sussex BN1 9EQ. gaznkaz1@ntlworld.com
* Shirley, Ms C., 6173 Allison Street, Arvada, CO 80004, USA.
** Stead, Mr M., 21 Belgrave Place, Handbridge, Chester, Cheshire CH4 7JD. stead1949@gmail.com
** Stockdale, Mr B., Ivy Cottage, 9 Meadow Lane, Loughborough, Leics. LE11 1JU. the.stockdales@sky.com
** Sylvester, Mr S.P., 12 Baird Road, Ratho, Newbridge, Midlothian EH28 8RA. steven_sylvester@hotmail.com
* Taylor, Ms H.R., 1915 Notch Road, Jericho, VT 05465, USA. hollyraetaylor@gmail.com
* Theakstone, Mr P., 21 Wavendon Crescent, High Barnes, Sunderland, Tyne and Wear SR4 8LW
** Thomson, Ms E., 11 George Road, West Bridgford, Nottingham, Notts. NG2 7PT. erica@erica.co.uk
* Turney, Mr T., 11 Sherbrooke Road, Sherbrooke, Victoria 3789, Australia. terry_turney@yahoo.com.au
** Valerius, Dr K.-P., Eichendorffring 137, 35394 Gießen, Germany. marlies-klaus-valerius@t-online.de
* Wahlsteen, Mr E., Norrvidinge 1488, 26872 Teckomatorp, Sweden. eric.wahlsteen@gmail.com
** Walker, Ms M., 3337 Skinner Road, Duncan, British Columbia V9L 4V4, Canada. maggiewalker@telus.net
* Warden, Mrs A., Fairfield, Silverdale Crescent, Sheffield, South Yorks. S11 9JH
* Wassenhove, Mr W., Snellegemsestraat 78, 8210 Zedelgem, Belgium. wvwtuinen@telenet.be

CHANGES OF ADDRESS

Applebee, Mr B.J., Flat 21 Armada Court, King Georges Way, Hinckley, Leics. LE10 0JQ
Barrington, Dr D.S., Department of Plant Biology, University of Vermont, 63 Carringan Dr, 111 Jeffords Hall, Burlington, VT 05405-0001, USA
Campion, Mr P.J., Lake View, Bassenthwaite, Keswick, Cumbria CA12 4RG
Dobak, Mrs J.M., 13505 SE River Road, #3025, Portland, Oregon 97222, USA
Hill, Mr A.R.C., 2 Gardiner's Oak, Poplar Road, Clehonger, Hereford, Herefordshire HR2 9SZ
Hill, Dr M.J., Flat 6, 21-22 Montpelier Place, Brighton, Sussex BN1 3BF
Hollis, Ms N.S., 1932 Bluebird Way, West Plains, Missouri 65775-7702, USA
León, Dr B., University of Texas, Herbarium, Plant Resources Center, 110 Inner Campus Dr., Stop F0404, Austin, Texas 78712-1711, USA
Merrington, Miss K.A., South Lodge, Tresco, Isles of Scilly TR24 0QQ
Mills, Mrs J.E., 12 Sandyfields Road, Sedgley, Dudley, West Midlands DY3 3LB
Moodie, Mr L.G.W., 76 Edinburgh Road, Dumfries, Dumfriesshire DG1 1JU, Scotland
Prado, Dr J., Instituto de Botânica (Herbarium SP), Av. Miguel Estefano, 3687, CEP 04301-902, Sao Paulo, SP, Brazil
Rothfels, Mr C., 5626 Genoa St, Oakland, California 94608, USA
Steffen, Mr R. & Mr R Peterson, 14711 Kestrel Place NE, Poulsbo, WA 98370, USA
Sykes, Mr R.W., 1 Moss Howe, Crosthwaite, Kendal, Cumbria LA8 8BW
Titterington, Mr J., 9 Meins Croft, Blackburn, Lancs. BB2 6QH
van Wierst, Mr B., Graafschap 57, 9405 JB Assen, Netherlands
Yatskievych, Dr G., Herbarium, Plant Resources Centre, University of Texas at Austin, Main Building, Rm 127, 110 Inner Campus Dr. Stop F0404, Austin, Texas 78712-1711, USA

CHANGES OF E-MAIL ADDRESS

Barton, Mr S. - scheffsean@outlook.com
Bennert, Prof. H.W. - Wilfried.H.Bennert@rub.de
Dockerill, Dr B. & Dr S.C. - briansuedockerill@outlook.com
Englisch, Mr J. - cj.englisch@posteo.de
Freshwater, Mr P.B. - peterbf23@gmail.com
Greening, Mr A.E. & Dr L. - alec.greening49@gmail.com
Haden, Mrs A.H. - hadenanne@gmail.com
Harbison, Mr J.P. - jimharbo@gmail.com
Hudson, Dr J.E.N. - bio_jxn@shsu.edu
Lawrence, Mr M.I. & Ms S.K. - sueklawrence@icloud.com
McHaffie, Dr H.S. - heathermchaffie@hotmail.com
Mehltreter, Dr K. - kmehltreter@gmail.com
Merrington, Miss K.A. - katymerrington@googlemail.com
Mostacero G., Mr J. - jmosta@gmail.com
Olsen, Mrs S.S. - foliageg@gmail.com
O'Ryan, Mr J.P.B. - 40jamesoryan@gmail.com
Randall, Miss L.J. - lynrandall@btinternet.com
Scott, Mr J.D. - johndscott302@gmail.com
Taylor, Dr W.C. - wcarl.taylor@gmail.com
Tejero Díez, Dr J.D. - tejero@unam.mx
Wheatley, Dr T. - trevw@motecroft.eclipse.co.uk
Wilkins, Mrs J. & Mr G. - gjwilkins@btinternet.com
Winder, Mr G.H. - ghwinder@hotmail.com
Yatskievych, Dr G. - george.yatskievych@austin.utexas.edu

THE AMERICAN FERN SOCIETY

The AFS invites all readers of this *Bulletin* to join the American Fern Society. You are welcome to visit the AFS website: amerfernsoc.org. Regular members receive *Fiddlehead Forum*, a newsletter published for those who are interested in growing ferns, hunting for them and expanding their knowledge of ferns. Journal members also receive the scientific quarterly *American Fern Journal*. There is also the opportunity to exchange spores (for a small extra fee). Membership costs $22 and $40 per annum respectively for members residing outside USA, Canada or Mexico, including postage for airmail-assisted delivery. For particulars please write to Dr Blanca León, Plant Resources Center, University of Texas at Austin, 1 University Station, F0404, Austin, TX 78712-0471 USA (bleon.afs20@gmail.com). Online credit card payment is available via the AFS website: amerfernsoc.org.

AFS SUBSCRIPTION PAYMENTS: Our societies have an exchange arrangement whereby members of the BPS can pay their AFS subscription through the BPS Membership Secretary and *vice versa*. To take advantage of this, prospective members should contact Dr Alison Evans, Springfield House, Salterforth Road, Earby, Lancs. BB18 6NE (Membership@eBPS.org.uk).

MEETINGS PROGRAMME 2016 – 125th Anniversary

Meetings Secretary: B.D. Smith
Meetings Subcommittee: R.J. Cooke, R. Golding, Y.C. Golding, N.J. Hards, T. Pyner, M.H. Rickard, P.H. Ripley, F.J. Rumsey

Sat. 16 April	**AGM & Spring Indoor Meeting - Natural History Museum, London** Leader/Contact: Peter Blake/Alison Paul
Tues. 24 - Sat. 28 May	***RHS Chelsea Flower Show: BPS Stand** Contact: Ann Robbins
Sat. 4 - Sun. 5 June	**Weekend field meeting - North Somerset** Leader/Contact: Paul Ripley
Fri. 17 - Sun. 19 June	***Plant Societies weekend - RHS Wisley: BPS Stand** Contact: Peter Blake
Sun. 3 - Sat. 9 July	**Week field meeting - 125th Anniversary - South Cumbria** Leader/Contact: Alec Greening
Sun. 10 July	**Chromosome workshop - RBG Edinburgh** Leader/Contact: Mary Gibby
Sat. 30 - Sun. 31 July	***125th Anniversary Display - RHS Wisley** Contact: Julian Reed
Sat. 6 Aug.	**Day Cultivar Group meeting - RHS Wisley** Leader/Contact: Julian Reed
Thurs. 18 - Sun. 21 Aug.	***Southport Flower Show: BPS Stand** Contact: Michael Hayward
Fri. 9 - Mon. 12 Sept.	**Long Weekend field meeting - North Wales** Contact: David Hill
Fri. 16 - Sun. 18 Sept.	**'Ferns & Fossils' - World Museum Liverpool** Leader/Contact: Alison Evans
Sat. 12 Nov.	**Autumn Indoor Meeting - RHS Harlow Carr, Harrogate** Leader/Contact: Roger Golding

** Event supported by, but not organised by, the BPS.*

For further details of these meetings please see the Meetings Programme sheets sent to members with the Autumn Mailing and also available on the BPS website. For general enquiries about meetings, contact the Meetings Secretary (Meetings@eBPS.org.uk).

Regional Meetings

These meetings are open to all members, so if you are visiting one of the following areas you would be very welcome to join in. For details of meetings please see the BPS website or contact the regional organisers by e-mail, or by post enclosing a stamped addressed envelope.

Cornwall & Devon	Ian Bennallick, Lower Polmorla, St Wenn, Bodmin, Cornwall PL30 5PE Cornwall@eBPS.org.uk
East Anglia	Tim Pyner, 182 Southchurch Boulevard, Southend-on-Sea, Essex SS2 4UX; EastAnglia@eBPS.org.uk
Manchester & N. Midlands	John Grue, Briarfield, Moss Lane, Broadbottom, Hyde, Cheshire SK14 6BD; ManchesterNorthMidlands@eBPS.org.uk
Midlands	Matt Busby, 16 Kirby Corner Road, Canley, Coventry CV4 8GD Midlands@eBPS.org.uk
North Wales	David Hill, 54 Grosvenor Avenue, Rhyl, Denbighshire LL18 4HB NorthWales@eBPS.org.uk
North-West England	Peter Campion, Lake View, Castle Hill, Bassenthwaite, Keswick, Cumbria CA12 4RG; NorthWest@eBPS.org.uk
Scotland	Bridget Laue, 50 Liberton Brae, Edinburgh EH16 6AF; Scotland@eBPS.org.uk
South-East England	Paul Ripley, 2 Station Villas, Station Road, Appledore, Ashford, Kent TN26 2DF; SouthEast@eBPS.org.uk
S. Wales & Borders	Brian Dockerill, 19 Westfield Road, Glyncoch, Pontypridd, Mid-Glam., CF37 3AG; SouthWalesBorders@eBPS.org.uk
Wessex	Jo Basil, 14 Royden Lane, Boldre, Lymington, Hants. SO41 8PE & Andrew Leonard; Wessex@eBPS.org.uk
Yorkshire	Bruce Brown, 4 Bank Parade, Otley, West Yorks. LS21 3DY Yorkshire@eBPS.org.uk

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